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THE MEDICAL AGE

A SEMI-MONTHLY JOURNAL OF

MEDICINE AND SURGERY

FREDERICK W. MANN, M.D.
EDITOR

VOLUME XVI

APR 25 1899

DETROIT, MICHIGAN
WILLIAM M. WARREN, PUBLISHER
1898

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THE MEDICAL AGE

VOL. XVI. DETROIT, JANUARY 10, 1898. No. 1.

ORIGINAL CONTRIBUTIONS.

DEFORMITIES (ILLUSTRATED).

BY DANIEL LA FERTÉ, M.D.,

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I feel encouraged to report more of the cases treated by myself at the Children's Free Hospital by the kindly reception which a late article which I wrote seems to have met at the hands of the profession. I shall not discuss the etiology and pathology of the following cases, but shall confine myself to their clinical aspects; and while I claim a certain amount of credit for the good results obtained, due credit must be given to the house physicians and nurses for the valuable aid given me in carrying out the after-treatment. In these orthopedic cases my experience teaches me that the most important part of the treatment for bringing them to a successful termination commences after the surgeon has finished his operative measures. It is for this reason that the authorities of the Children's Free Hospital are so careful in selecting those whose duty it is to see that the directions of the visiting staff are faithfully carried out. In this they have not been disappointed, for we have a corps of internes and nurses who do credit to their respective professions.

Case 1.—W. T——. This child was born healthy and not deformed. He continued to enjoy good health until he was two years of age, when he was attacked with scarlet fever of a severe type. This was followed by a paralyzed condition of the peronei muscles which caused, as the parents expressed it, a certain amount of dragging of the foot. This condition of things went on from bad to worse until the child's foot, when he was admitted in the hospital, presented the appearance shown in Fig. 1.

This boy was eight years of age when we operated upon him. The result of the operation was good, as shown in Fig. 2, but as will be noticed in that illustration the foot was considerably swollen. This is due to the fact that the photograph was taken shortly after the operation, the parents being in a hurry to take the child home. In these severe cases, after the Phelps operation it is no unusual thing for the foot to remain swollen for a considerable time, owing to a number of vessels being cut, and consequently it takes some time for the return circulation to become freely reestablished.

FIG. 1.

FIG. 2.

Case 2.—H. W——, four years of age. This child came to us without any history of special interest, having been born with his deformed foot. In this case the parts were very rigid, and it looked like one of those cases where it would be necessary to remove the astragalus or curved bone, or perform some osteotomy of the tarsus, before his deformity could be corrected. I decided to try the Phelps operation, but three weeks later it was evident that it would not prove successful, so it was decided to try the same operation a second time. The result proved our judgment to be correct. The child is left with a more shapely foot than if any of the bones of the tarsus had been removed. (See Figs. 3 and 4.)

Case 3.—J. M——, five years of age. This boy presented quite a typical case of talipes varus with its accompanying symptoms, sluggish circulation, as evidenced by coldness of the limb and mottled appearance of same when exposed to the air. There was also considerable atrophy of the muscles of the right leg and a large callus on the outer border of deformed foot (Fig. 5). Just one month after operation this child was attacked with diphtheria and was sent to the contagious ward connected with Harper Hospital. Although his foot had not yet healed, it did not seem to retard the cure, as the wound went on to cicatrization and was well in about the usual time.

FIG. 3.

FIG. 4.

Fig. 6 shows the child as he appeared one year after the operation. I intentionally deferred having his picture taken in order to see if the cicatrix would contract and cause a relapse. In this case, as in the two preceding cases, I used no complicated device to keep the foot in place after operation, but simply applied a piece of sole leather half an inch thick on the outer border and gradually whittled down on the inner border. This piece of leather is fastened to the outer border of the sole of an ordinary shoe and is long enough to extend from the toe of the shoe to about the junction of the anterior and middle third, and wide enough to extend to about the middle of the sole of the shoe at the point, and is cut in a curved line to an apex posteriorly and externally — in other words, this piece of leather is almost triangular in shape, its base being at the point of the shoe, its apex at the outer border of the sole. This little device has a tendency to keep the toes pointing out in walking and also to roll the inner border of the foot downwards and thus keep the same in a slightly overcorrected position.

Case 4.—That of a child three months old. In this case probably a cure could have been accomplished without operation. There is no doubt that

FIG. 5.

FIG. 6.

manipulation with the hand and the application of adhesive plaster and bandages would have straightened the feet, but the great danger is always that the patient becomes discouraged with the treatment when prolonged over several months; and, taking into consideration the danger of relapse and the discouraging effect such a mishap would have upon the parents, it has always seemed to me a wiser plan to operate, since I have never seen any ill effects follow such operation, even in very young children. This patient was discharged fourteen days after operation. (See Figs. 7 and 8.)

I have in mind a case very similar to the one now under consideration, upon which I worked faithfully for several months, commencing treatment immediately after birth. I succeeded in that case in correcting the deformity, but in the course of a few weeks I was chagrined to find a relapse of the trouble. The treatment was commenced over again and the feet straightened a second time, but in a few weeks after stopping the treatment the same tendency to relapse again showed itself, when I resorted to operation and had no further trouble.

To guard against the possibility of relapse in the cases that come to me

FIG. 7.

FIG. 8.

from a distance for treatment, I have devised a safety shoe (Fig. 9), manufactured by A. Kuhlman & Co., of this city, which consists of an upright and a foot-piece constructed with a view of keeping the foot in a slightly overcorrected position. The foot-piece is so shaped that it fits the sole and is about two-thirds the width of same and overlaps the outer border of the foot for a short distance over the dorsum. It is made of slightly pliable steel, and is so curved that a convexity along the outer border of the foot presses at a point opposite the junction of the os calcis and cuboid. The convexity can be increased at will and according to the necessity of the case by means of a set screw. The foot can be pressed against this foot-piece by means of straps, and the foot can by this simple device be kept in the overcorrected position. Since I have made use of this shoe I feel more secure after my cases pass from my observation, and the reports that I get and the effect that I have been able to observe are all that could be desired.

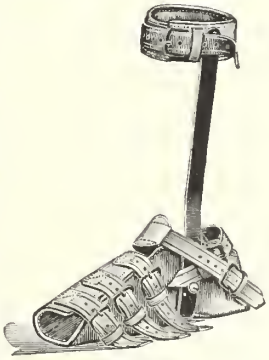


FIG. 9.—La Ferté's Safety Shoe.

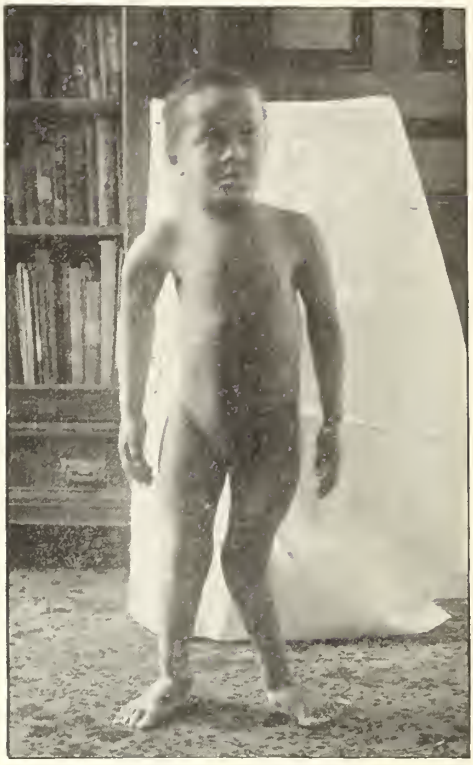


FIG. 10.

FIG. 11.

It is not many years ago that I followed very faithfully the teachings of some of our most eminent orthopedic surgeons and endeavored to correct cases of genu valgum by means of the braces usually constructed and applied in those cases. I cannot now account for the reason why I adhered to the old orthodox method and persisted for so long a time in attempting to correct those deformities by the application of those braces, unless it was that I

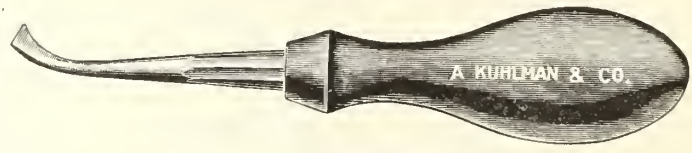


FIG. 12.—La Ferté's Periosteum Elevator.

believed in the teachings of those who claim that genu valgum is essentially a trouble which consists in a relaxation of the internal lateral ligament of the knee-joint. Since I began to look to something else besides the ligaments, fascia and muscles as the cause of the deformity, I have almost abandoned any attempt at straightening the knees by applying braces. If the trouble is due to bone changes caused by the rickety diathesis (and almost all

FIG. 13.

FIG. 14.

pathologists are agreed upon that point) it will be readily understood why the ordinary appliances would fail to have any effect upon the deformity. The method that I have followed for the last few years is that of Dr. MacEwen, which consists of cutting the lower end of the femur about half an inch above the epiphysis. This is done subcutaneously. In my cases the periosteum was raised and the bone sawed under that membrane, which was raised from the surface of the bone by means of the elevator (Fig. 12) which I devised some years ago.

The operation is always done under strict aseptic precautions, and no unfavorable symptoms followed in any of my cases. The result can be better appreciated by reference to the plates in the following cases. In about four weeks the patients are usually able to walk around quite comfortably.

Case 5.—L. J——, seven years of age. Parents state that other members of their family in youth had been unhealthy and troubled with curvatures of the bones. This boy was operated upon February 18, 1893, when the limb was put up in a plaster-of-Paris bandage. On the 12th day of the following March the cast was removed and union was found to be firm, but as a

FIG. 15.

FIG. 16.

precautionary measure he was kept in the hospital until March 31, when he was able to run and jump with his leg, and was sent home. (See Figs. 10 and 11.)

Case 6.—E. S——, four years of age. The mother stated that she noticed the child was beginning to show symptoms of knock-knee. Though his trouble was very slight as yet, she brought him to me for treatment, as she had had experience with two other children—a boy and a girl—upon whom I had operated for a similar trouble. I told her that the deformity being so slight, with internal medicines and the application of braces the trouble could be remedied without operation; but she preferred to have an operation performed, not feeling that she could afford the expense of braces; and besides, the other two children had got along so well after section of the bone that she did not fear to have this last child subjected to a similar procedure. Consequently I operated on May 7, 1894, and discharged the child July 6, 1894.

It will be noticed that in this case healing of the bone was rather slow, owing to the fact that the child was suffering from early symptoms of rickets.

FIG. 17.

FIG. 18.

for which internal remedies were administered while he remained in the Children's Hospital and for some time after he left us. (See Figs. 13 and 14.)

Case 7.—L. T——, aged four years. This child had been a great sufferer from rickets from birth, and this had left a condition of marked curvature of both femurs anteriorly and externally; genu valgum of both sides, which was especially pronounced in attempts at walking, when the knees would strike together; an anterior curve of both tibias; and a relaxation of the internal lateral ligament of each ankle, producing a condition almost akin to talipes valgus.

The cutting of the two femurs was done May 20, 1897. The operation on the tibias, consisting of taking a V-shaped piece of bone from the anterior part, was performed August 21, 1897. (See Figs. 15 and 16.)

Case 8.—V. T——, three and a half years of age; admitted with a very pronounced deformity of left leg. Osteotomy of femur performed March 10, 1897. Wound done up as in the previous cases by sealing with iodoform gauze and collodion wrapped in cotton batting, and the limb encircled from the toes to upper end of the thigh with plaster bandages. The cast was

FIG. 19.

FIG. 20.

removed on April 4, the child allowed to get up and walk on the 9th of the same month, and was discharged on the 18th of April. (See Figs. 17 and 18.)

Case 9.—John K——, two and a half years old. This case, consisting of hypertrophy of the large toe and the one next to it, is reported on account of its being an exceedingly rare affection. The child was obliged to wear a shoe almost the size of the shoe of an adult. There was no pain connected with the affection, but the parents noticed that during the last eighteen months the trouble had grown rapidly. There was no history of anything of similar nature in the parents. It was decided that trying to remove the trouble by strapping or sorbefacient remedies would avail nothing, so amputation was done. After removing the two toes and a portion of the metatarsal bone of the large toe, as the hypertrophy extended up a short distance along the inner border of the foot, the mass was examined and found to consist of adipose matter strongly intermixed with fibrous tissue. The microscope showed the existence of a large number of fat cells. (See Figs. 19, 20, 21, and 22.)

FIG. 21.

FIG. 22.

WHAT BECAME OF THE THERMOMETER.

BY W. VAN SLYKE, M.D., DETROIT, MICH.

On August 14 there was admitted under my charge in one of the medical wards of St. Mary's Hospital a young man twenty-four years of age. His previous history was very vague. From a friend who came with him when admitted I was able to ascertain that about seven weeks earlier he had been ill with typhoid fever. Further than that I could find out nothing definite. He lay in a semi-comatose condition, answering in monosyllables, but very intelligently, all questions asked of him. His facial aspect was strongly indicative of typhoid fever. It was what upon study of the patient would be called a typhoid expression. His temperature upon admittance was 102.2°; pulse 120 and decidedly dicrotic. Dejections from five to six a day. The urine contained a great quantity of urates, also albumen. Upon palpation the spleen appeared to be slightly enlarged; liver apparently normal in size. Upon palpating in the right iliac region there was transmitted to the hand a gurgling sensation. These symptoms persisted for five days. The stools all this time were of very offensive odor, light in color, but not what would be called typhoidal. Examinations of the blood were repeatedly made, and I could always satisfactorily obtain the Widal reaction. The patient the

second day after coming into the hospital bit the bulb off of the thermometer while the nurse was endeavoring to take his temperature. He swallowed it, but apparently did not suffer inconvenience from doing so. That same day a consultation was held, as there appeared to be an air of mystery in regard to his case. The consultants unanimously agreed that it was one of relapsing typhoid.

From the sixth day on patient's bowels became somewhat constipated, temperature went down to 98⅘°, and stayed around that point, never going above 99° F.; the pulse became slow — 66. His whole demeanor changed. He began to vomit frequently, but the act did not apparently distress him. From this time on all substances coming in contact with the stomach were immediately rejected—typical cerebral vomiting In spite of rectal feeding he continued to grow worse. The urine became red with phosphates. The right eye was now slightly convergent, and the left pupil slightly dilated. Speech became thicker, yet his answers were remarkably intelligent. Ophthalmoscopic examination by Dr. Eugene Smith revealed great engorgement of the vessels of the retina—papillitis existing. Another consultation was now held. Some of the consultants still thought the case to be one of typhoid; others thought it to be one of brain lesion.

The patient died at the end of six weeks.

Post-mortem examination disclosed a tumor in the floor of the fourth ventricle, encroaching greatly into the substance of the pons, medulla, and cerebellum. The ventricle was distended with fluid, showing that communication with the subcerebellar spaces was occluded. The tumor by microscopical examination was found to be tubercular. All other viscera of the body were nominal except the spleen, which was greatly enlarged, and contained several infarcts bloody in character. The appendix vermiformis appeared to me to be exceedingly long, so I severed it from the bowel. Upon opening it I found in the very tip a round, white, shining object, about one inch long, which upon second glance proved to be the bulb of a thermometer. I remembered then the circumstance of his swallowing such during the early part of his illness. No sign of inflammation was present in the appendix. The foreign body had apparently produced no irritation. Whether it would have produced trouble if he had moved about much is a question.

It seems to me that many conclusions are to be drawn from this case:

1. That relapse in typhoid cannot always be easily diagnosed from brain lesion.

2. That the Widal test will not always elucidate matters, as the patient may have had typhoid months before.

3. That ophthalmoscopic examination should be more frequently resorted to as a valuable agent in diagnosis.

4. That foreign bodies do sometimes gain access to the appendix vermiformis, and under certain conditions that organ is very tolerant of their presence.

5. That too much stress must not be laid upon the so-called typhoid facies.

IN MEDICAL CONCLAVE.

A SANITARY CONVENTION.

A sanitary convention under the auspices of the State Board of Health met in the Central High School Building, Detroit, December 10–11.

Dr. Frederick Novy, of Ann Arbor, read a paper on "Germs: What They Are and How They Cause Disease." The paper was a popular exposition of current bacteriological opinions and facts.

Dr. McGraw in discussing this paper maintained that full knowledge of the life-history of the bacillus tuberculosis was not yet attained. "We have no proof," he said, "that it does not grow in fields and in damp and dark places. And yet we find a prominent physician of this State, a man whom we all esteem, advocating that persons having consumption be isolated—locked up for life! A consumptive may live twenty years. It may be possible to keep him imprisoned that length of time, but would it be advisable?"

Dr. H. B. Baker, secretary of the State Board of Health, denied that he ever had advocated the imprisonment of consumptives for life. "I regard it as absolutely wicked," he added warmly, "to misrepresent a man in that manner. I object to being put up as a man of straw to be knocked down. My views on this subject could easily have been found in print. I do not see how Dr. McGraw could have been so easily mistaken."

Dr. McGraw said he had no desire to misrepresent Dr. Baker, but it was understood among Detroit physicians that the State Board of Health recommended treating consumption the same as diphtheria.

Dr. Novy said he was surprised at some of Dr. McGraw's statements. "He charges bacteriologists with working in their laboratories, and not knowing what they are doing. He says that we preach that none enjoy immunity from tuberculosis. That is not true. We know that many do enjoy immunity. He says that tuberculosis germs will grow in dark and wet places, when we know that they will not grow except in living bodies and in the light."

Dr. McGraw declared that he had been misunderstood on both of these points.

The afternoon session closed with a paper by Dr. Guy L. Kiefer on "Isolation and Disinfection of Persons and Things in Cases of Communicable Diseases," in which he declared that cremation is the only complete disinfectant in case of death. Dr. Baker, in the discussion that followed the paper, advocated the burning of sulphur for disinfecting purposes.

At the evening session Miss Marsh read a paper on "Popular Education in Sanitary Science," which was discussed by Drs. Leartus Connor, W. S. Chittick, and Barclay.

Dr. McClintock read a paper on "Diphtheria and Scarlet Fever from the Purely Scientific Standpoint." It dealt largely with features arising out of the bacteriology of the disease.

Dr. C. G. Jennings read a paper on the communicable diseases from the standpoint of the physician. He reached the conclusion that isolation and disinfection are impracticable in the homes of the poor, and that isolation hospitals are necessary.

Dr. Oscar Le Seure read a paper on the standpoint of the local Board of Health in regard to diphtheria. Dr. Le Seure thought that a public disinfecting plant is necessary, and he believes in using antitoxin. Health Officer Duffield also spoke in its favor.

On the second day Mr. John McVicar, President of the Board of Public Works, read a paper on "Streets and Alleys and their Relation to the Public Health." The paper reviewed the methods of street-cleaning mostly in vogue, with sewers, and pavings. The paper was discussed by Mrs. L. H. Trowbridge, Dr. J. E. Clark, and Dr. H. W. Longyear.

This was followed by a paper on "Typhoid Fever and the Water-supply of Detroit," by Gardner S. Williams, civil engineer of the Detroit Water Commissioners. This paper evinced a great amount of study into the causes of recent visitations of typhoid fever in Detroit and was illustrated by a number of tabulated statements. Mr. Williams' object was to trace the sources of recent outbreaks of typhoid fever and of the contamination of Detroit's water-supply, and as an outcome of his researches he pronounced the St. Clair River above Detroit a source of great danger, owing to the sewage of Port Huron and the smaller towns along the river pouring into the river. Impure water, in the great majority of cases, was pronounced the cause of typhoid fever. He paid a high compliment to the Detroit Board of Health for its work in the past, and the completeness of its records of disease, the importance of which he said was very great and would prove greater in the future.

Dr. W. I. Tibbals spoke of 30,000,000 gallons of sewage daily pouring from this city into the Detroit River, and said it is extremely dangerous to use water taken from any point between Detroit and Lake Erie. European cities, he said, were ahead of American in respect to their water-supplies, and considered safety first ahead of cost. There filtration is extensively used.

At the evening session the restriction and prevention of consumption was discussed from different standpoints. Professor Vaughan, of Ann Arbor, first spoke of the subject from the scientific standpoint. He said in part: "There die in the civilized world every year from tuberculosis 1,095,000 individuals. At the present time, it is safe to say that 133,000 people die every year in this country from pulmonary consumption, and other forms of tuberculosis will probably bring the death-rate up to 150,000 per year. The restriction and prevention of consumption are possible. To effect this, the causative agent and how to destroy it must be known. Koch's bacillus is to-day acknowledged to be the cause of tuberculosis. In many localities cattle and hogs are afflicted with tuberculosis, which may be communicated to individuals by drinking the milk or eating the meat of these animals. The remedy is to kill the animals and destroy their bodies. Another source of disease is the sputum and excreta of patients. Care must be taken then to prevent communication from these. Infected houses are another source, and disinfection is necessary in such cases. Consumption hospitals should be established, which will prevent the spread of

the disease and teach the patient how he may mingle with his fellows and not spread contagion. If we apply our knowledge of tuberculosis as we should, the great white plague will disappear."

Dr. Grange, V.S., spoke on "The Relation of Tuberculous Animals to Consumption in Human Beings."

Dr. Charles Hitchcock spoke from the standpoint of a practising physician. The latter's attitude towards the sanitary authorities, he said, should be one of hearty cooperation in all rational methods to conserve the public health. Physicians are in accord with the educative methods adopted by the Board, but these will receive more attention from the patients and their friends if they come through the family physician. The physician may be relied on to advise what is best both for the public good and for the patient and those around him. The common use of drinking vessels in public places, and indiscriminate kissing, were strongly condemned.

Health Officer Duffield, of Detroit, spoke from a health officer's standpoint, and emphasized the necessity of destruction of sputa and of disinfection of a patient's room, clothing, and bedclothing. The symptoms of suspects should be examined by health board officials, he said, free of charge, and at the request of the family physician. The climatic conditions here made it useless to build hospitals except for advanced cases, but Michigan should build cottage hospitals in some favorable spot, where the poor and needy patients could be sent for treatment. The attempt to isolate or institute a surveillance of patients is beginning at the wrong end. Patients should be treated in hospitals where they can learn something of the nature of their disease and how to check it and prevent its spread.

Hon. Frank Wells, as a member of the State Board of Health, said that the State Board four years ago took the position that tuberculosis should be placed in the list of diseases dangerous to public health, a position that had been amply justified. The Board did not mean to enforce isolation or placarding, but to learn the number of cases in the State, so that patients and their friends could be furnished with literature to educate them regarding the disease. General education is regarded by the Board as very important. The patient who will destroy his sputum should be allowed to mingle with healthy people, but he who disregards this precaution should be isolated. Frequent examination of cattle should be enforced. Hospitals for consumptives should be built, and the isolation of consumptives in prisons and asylums should be enforced.

In the discussion which followed, Dr. Obetz favored Dr. Duffield's proposal of cottage hospitals in a favorable location. Fred R. Belknap, of Niles, Mich., a member of the State Board of Health, said the Board believed that something should be done in this matter of consumption, and done now. Therefore it had taken the lead in the matter. The Board has made its suggestions and the physicians have made theirs, Mr. Belknap said, and all that the Board can ask is that the best means may prevail.

Dr. Thomas S. Barclay said that the answer to the question of how consumption is to be restricted is to handle the poor. Sending them to the South or other points is too expensive. A hospital should be built here, and built with private contributions.

WAYNE COUNTY MEDICAL SOCIETY.

The usual meeting of the Society was held on Thursday, December 23, 1897, the President, Dr. L. E. Maire, in the chair.

The paper of the evening was read by Dr. Fritz Maas, entitled "The Toxin and Serum Treatment of Inoperable Tumors." "Some years ago," said the speaker, "a chance cure of sarcoma in a patient suffering from erysipelas directed attention to the supposed antagonism of the streptococcus of erysipelas and sarcoma. Coley, of New York, began experimenting with a culture of erysipelas cocci. He later added a culture of bacillus prodigiosus, and a combination of these two is now known as Coley's mixture. So far out of 157 cases Dr. Coley reports five cures." The author then proceeded to speak of Emmerich's method, that of using serum from donkeys which had been injected with erysipelas cocci and bacillus prodigiosus. He also mentioned the French method of using serum of animals which had been previously subjected to sarcoma toxins and juices. The speaker then alluded to cases in which he had used Coley's mixture. He could not speak hopefully of these experiments, but thought they merited further investigation. The matter of prophylaxis by means of an immunizing serum was suggested in these cases in which sarcoma had been operated upon.

Dr. Maas' paper was freely discussed; and the meeting concluded with a general discussion of prevailing diseases and reports of cases.

THE PROFESSION AND TUBERCULOSIS.

On Saturday, December 4, a meeting of Detroit physicians was held in the rooms of the Detroit Medical and Library Association for the purpose of discussing the advisability of placing tuberculosis and whooping-cough in the same category with diphtheria, smallpox, and such diseases, thereby necessitating the placarding of houses where such diseases exist and the isolation of patients as proposed by the State Board of Health.

Dr. Herman Kiefer was called to the chair.

Dr. Le Seure read a list of questions to be answered by each physician concerning a case of tuberculosis under his care and forwarded to the State Board of Health.

Dr. E. L. Shurly in his remarks said: "There is no question that tuberculosis is infectious, but there is a question how far it is contagious in the ordinary sense of the word, and therefore it is doubtful if there is any good reason for putting it on the list of infectious diseases such as diphtheria and scarlet fever." He thought the sanitary officers scarcely warranted in taking the step they advocate on account of the hardship it would work and the alarm and uneasiness it would raise in the minds of the people.

Dr. Longyear read the instructions to physicians and patients issued by the New York Board of Health, where physicians are required to report cases of tuberculosis.

Dr. E. G. Knill spoke against the proposed measure, saying: "If houses of

consumptives are to be placarded, perhaps for years, the result to the patient is ostracism."

Dr. O. W. Owen followed the last mentioned speaker, and in his remarks asked: If consumption is to be placarded, why not those suffering from gonorrhea and syphilis?

Dr. Duffield stated that tuberculosis, by an order of the State Board of Health, had already been placed in the same category with smallpox, diphtheria, and such diseases.

Dr. Geo. E. Frothingham spoke strongly against the proposed sanitary precautions, and said: "The Board of Health might as well kill a man at once as submit him to such inhuman treatment."

Other physicians followed in the same strain, and the meeting ended by unanimously adopting the following resolution:

That it is the sentiment of this meeting that it is unnecessary and inadvisable to placard, isolate, or in any way make public the fact that any person has consumption; but that it would be advisable to educate the public through the physician by suitable literature from the Board of Health.

Further, in assisting the physicians it would be advisable for the Health Board of the city to institute bacteriological examinations of sputum.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

At the regular meeting Monday, December 20, 1897, an interesting paper, entitled "How Shall We Treat Threatened Puerperal Convulsions? With Report of Two Cases," was read by Dr. A. N. Collins. The speaker said this is a condition with which all physicians in active practise have more or less experience, and therefore one which all could freely discuss. A knowledge of its causes would greatly aid us, but at the present time we are very much in the dark in that regard. The poison was undoubtedly developed somewhere in the system, and as the kidneys fail to eliminate it we have at present no good theory to explain the phenomena. When dangerous symptoms such as albuminuria and retinitis pigmentosa appear, our best efforts must be put forth, otherwise the life of our patient is in grave danger. When these appear early during pregnancy we have our most dangerous cases.

The treatment of this condition by baths, acetate of potash, digitalis, and milk diet may or may not tide us over. If these fail and the urine shows greatly increasing quantities of albumen, labor must be brought on artificially as the only means of saving the life of the woman.

The paper was concluded with the report of two cases when labor was brought on prematurely.

The discussion which followed was opened by Dr. Longyear. The highest duty of the physician is the practise of preventive medicine, and these cases present the greatest opportunity. If treated before convulsions occur the chances of saving both mother and child are greatly improved. He doubted the theory of pressure of the kidneys causing the trouble. In regard to treatment he thought that the milk diet together with saline cathartics was of great value.

Dr. Carstens remarked that we see less nowadays of this condition on account of care in examining the urine of pregnant women. Those women who have albumen in their urine during the first pregnancy are apt to have it in succeeding ones. By all means bring on abortion early.

Drs. Hitchcock and Metcalf recalled several cases which had terminated favorably.

Dr. Parker said that if edema be present great relief can be secured by several incisions about the ankles, keeping the patient sitting in a chair to favor drainage.

Preceding the reading of Dr. Collins' paper, Dr. H. D. Walker presented two interesting pathological specimens—one a spleen weighing twelve pounds, removed from a man who died suffering from leucemia, and the other the sac of a strangulated hernia.

Dr. Carstens presented part of the small intestine removed from a man on whom he had operated for intestinal adhesions.

Dr. Metcalf presented seventy-eight small gall-stones which a woman twenty-nine years of age had passed.

DETROIT ACADEMY OF MEDICINE.

At a meeting held on Tuesday evening, Dr. Thaddeus H. Walker read a paper on "Methods of Examining the Blood." The writer demonstrated by a series of drawings and charts the most recent methods of estimating the hemic elements, and exhibited the instruments now in use for quantitative determination of the corpuscular contents. He also demonstrated the morphology of the leucocytes by means of colored drawings and specimens under the microscope. The appearance and modification of the leucocytes in different types of leucocytosis was commented upon, and the value of these methods of confirming diagnosis insisted upon. The different anemias were described, and the numerous changes in the red corpuscles were the subject of interesting demonstrations.

The paper was highly commended by those present, and the importance of these methods of physical diagnosis generally recognized.

At the recent International Congress on Leprosy held in Berlin, Professor Virchow was elected president. Dr. Hansen, of Norway, in his address emphasized the necessity of isolating lepers, a measure which he said was of as much interest to the patients as to the community at large. In Dr. Hansen's opinion the efforts of Unna, Carasquilla and Danielson to cure leprosy by means of drugs and the serum treatment have been quite ineffectual, claiming that the disease decreases only under the influence of strict isolation and increases again when isolation ceases to be enforced. He also claimed that the hypothesis that leprosy might be due to hereditary influence was erroneous.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

SOME ASPECTS OF PREVENTIVE MEDICINE.

The Sanitary Convention in our city last month revived customary controversies regarding vexed questions of public sanitation. The high priests of public hygiene glow with holy zeal whenever they descant upon what State medicine might do if it could; while those who oppose its pretensions are mildly indignant as they contemplate what State medicine could do if it might. Youthful as it is as an organized branch of medical science, State medicine, like the infant Hercules in his cradle, has already shown its prowess, by strangling the serpents which have come within its grasp. If it were allowed to exercise its powers without let or hindrance it would be difficult to define its limitations. By a few happy enactments it might extinguish the contagious and infectious disorders, and by a simple and systematic regulation of marriage might vastly diminish the dire mass of hereditary disease. If it might only apply to humanity the arts of the stock-raiser and devote to the cultivation of the *genus homo* similar care to that given to the breeding of the trotting-horse, it might produce a type of well-bred excellence the attainment of which even officers of health might deem a sufficient justification for going out of business.

Most of the interest in the recent meetings centered about the tuberculosis problem. So long ago as 1893 the Michigan State Board of Health passed a resolution including tuberculosis in the class of diseases dangerous to the public health, and requiring notification of all cases of the disease to the local health officer on the part of householders and physicians. While no serious attempt has been made to enforce this resolution, it has remained unrescinded, a monument of hygienic valor—a Liberty enlightening the world. The Secretary of the Board has designated consumption "the most dangerous communicable disease now known to us," and speaking of consumptives who are not sufficiently intelligent or conscientious to avoid spreading the disease has said: "For myself I have no hesitation in expressing the belief that all such consumptives should be isolated."

It is thought by many that to declare consumption contagious in the ordinary acceptation of that term would at least be going as far as the evidence

allows, and might possibly extend beyond the boundaries imposed by absolute experience. Many also would esteem compulsory notification as a measure of questionable sagacity. Its first effect might be to clandestinate the disease, and thus create a condition the reverse of that desired.

It is somewhat premature to indicate the precise line of action which will eventually be adopted in intelligent communities. The question is naturally one which extends beyond the borders of its scientific limitations. It is a question of broad sociological import. It is recognized that under the growing assertiveness of certain advisory bodies there sometimes smolders a dangerous spirit of aggressiveness. Prophylactic medicine is the application of certain biological laws to the needs of mankind. The administration of biological law for mankind is too important a function to be relegated to bodies of ill-defined responsibility and of haphazard constitution. For those principles for which State medicine stands there must be an important future. The study of health and the preservation of health must some day constitute the primary and positive sides of medical science. The study and treatment of disease must be but negative and secondary parts of medicine. If we are to be delivered from the wanton scourge of unnecessary disease, it must be through the efforts of a philosophic medicine whose positive instincts shall not permit the absorption of all its energies in the narrow study of morbid processes. That this kind of medicine is being evolved seems certain. Meanwhile, until State medicine acquires this kind of preeminence, it will be felt by many thoughtful observers of events and their tendencies that in matters of sanitation the elements of public security are not likely to be found in any wide departure from the doctrines of a sane and democratic individualism.

EDITORIAL NOTES.

Sleep and Longevity.

There are several sayings about sleep, wise and otherwise. Most of the popular adages about early to bed, while they may receive intellectual sanction, are treated with practical contempt when they come to be practised by those who can afford to ignore them. These maxims are probably as fallacious as proverbs generally. In a recent number of *Cosmopolis* Professor Max Muller records a conversation he had with Alexander Von Humboldt on the subject of sleep. "As I get old," said Humboldt, "I want more sleep — four hours at least. When I was young two hours was quite enough for me." Humboldt lived to be eighty-nine, and said it was quite a mistake that we need seven or eight hours of sleep. Professor Legge, the Chinese scholar at Oxford, rose habitually at 3 A.M. and allowed himself only five hours' sleep. He died at the age of eighty-two. Brunel, the engineer, used to work habitually twenty hours a day, and after a few hours' sleep in an armchair was always bright and fresh. These examples are not "provings" except in a homeopathic way, and do not indicate much, save that short hours of sleep are not in all cases incompatible with a high degree of longevity.

Marriage and the Price of Wheat.

The statistician is finding an interest in the wheat market which is slightly different to that discovered by Messrs. Armour and Leiter. A survey and comparison of British vital statistics show that the marriage-rate has gone up and down with the value of British exports and the average price of wheat. These ratios have been in the same direction practically for thirty-five years. Cheap wheat has always been coincident with a lowering of the marriage-rate. This is accounted for by the fact that cheap wheat means diminished exports to pay for it, or, as an eminent statistician observes, "a careful analysis of the various factors concerned in the cheapening of grain will lead us not to the conclusion that a cheap and abundant food checks reproduction, which is absurd, but rather to the result that any cheapening of food may indicate bad trade, checked manufacture, agriculture for the time being outstripping the production of those articles against which it barters its produce." The subject is an interesting one for the Malthusians to speculate upon.

A New Surgical Achievement.

From Switzerland comes the report that Dr. Carl Schlatter, of Zurich, has made a complete removal of the stomach. This operation has excited a good deal of wonder in the lay mind, but with the triumphs of gastro-intestinal anastomosis already before us, it is certainly no new idea that the stomach is not a vital or even a necessary organ. Our knowledge of intestinal digestion should certainly be sufficient to make the stomach a physiological superfluity from the standpoint of nutrition. It will be interesting to note, when the time arrives, to what extent Nature will adapt the end of the intestinal tube to the form and function of the removed organ—to observe, in fact, how far she will condone surgical audacity.

A Health Officer Resigns.

The announcement that Dr. S. P. Duffield intends to resign as Commissioner of Health for the city of Detroit will be received with deep regret by the profession. Dr. Duffield assumed the duties of his position in agitated times and has exemplified the possession of that admirable gift of carrying in his right hand gentle peace, and has demonstrated its power to silence envious tongues. During his term of office the sanitary affairs of the city have been conscientiously and capably administered. Dr. Duffield will carry with him to whatever field of labor he repairs the good-will and approval of his professional friends.

According to Dr. Constantine, of the Buffalo Health Department, it is a common practise for Italian fruit venders to hasten the ripening of bananas, oranges and lemons by placing them in their filthy tenement-house beds, where the fruit receives the animal heat from their bodies. Fruit subjected to this process will ripen in an incredibly short time.

ITEMS AND NOTES.

THE smuggling of phenacetine is on the increase.

THE members of the Detroit Health Commission seem to think they are being Pounded.

OBITUARY.—Dr. Chas. H. Aury, secretary of the Medical Society of New York, died November 2, 1897.

THE efforts of Italian physicians to prevent those holding English degrees from practising in that country have failed.

PROFESSOR DOEHLE, of Cologne, claims to have discovered and established the identity of the bacillus which produces syphilis.

A NEW medical journal, published in Philadelphia under the editorship of Dr. Geo. M. Gould, made its appearance the first of the year.

MR. JONATHAN HUTCHINSON, F.R.S., has intimated his willingness to found an educational museum in his native town of Selby, Yorkshire.

MR. FREDERICK TREVES has resigned the Lectureship on Surgery at the London Hospital, and has been succeeded by Mr. Mansell Moullin.

GOVERNOR ADAMS, of Colorado, has signed the bill prohibiting the sale of cocaine without a written prescription of a licensed physician or dentist.

A LOUISVILLE physician at present practising in the Klondike gold region is reported to be making a fortune by selling capsules of quinine at three dollars apiece.

THIROLOIX, a French investigator, asserts that since March last he has five times found the pathogenic bacillus in the blood of persons suffering from acute rheumatism.

THE *British Medical Journal* urges that greater restrictions should be placed upon the sale of poisonous drugs, owing to the great increase of deaths resulting from accident.

DIFFICULTY in procuring a sufficient number of subjects for dissection is said to be seriously hampering the work in the anatomical laboratories at Cambridge, England.

AMONG the applicants for a license to practise medicine at Atlanta, Ga., recently was a colored woman. She is a graduate of the Woman's Medical College, Philadelphia.

THE BLOODY SWEAT.—The latest scientific explanation of the accredited miracle of the bloody sweat is that it is the result of the growth of the red *micrococcus prodigiosus*.

THE discovery of quinine was made in Paris many years ago. The people of that city are now arranging to erect a monument to the discoverers, MM. Pelletier and Caventon.

OWING to the death at Pensacola, Florida, of a man suffering from yellow fever, a royal decree has been issued in Spain ordering that all vessels arriving in Spanish ports from Pensacola be quarantined.

THE WESTERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.—The seventh annual meeting was held in Denver December 28 and 29, under the presidency of Dr. Joseph Eastman, of Indianapolis.

DR. SINCLAIR, of Manchester, England, recently made the remark that "modern medical students learn surgery, which but few of them practise; while nearly all practise obstetrics, which they never learn."

GLASS, prepared by a new patented process, which renders it soft and malleable, is now used by dentists to fill the cavities in teeth. It is said to answer the purpose admirably and is less conspicuous than gold.

THE Women's Hospital Society of New York has elected the following officers for the ensuing year: President, Paul F. Mundé, M.D.; Vice-President, Leroy Brown, M.D.; Secretary and Treasurer, James N. West, M.D.

THE two sons of the late Mr. Sage, of Ithaca, N. Y., have presented his former residence to Cornell University to be used as a hospital for the students of that college, together with an endowment fund of $100,000 for its maintenance.

DR. P. CASTRELS Y BEELISPI, sanitary inspector of the Province of Barcelona, Spain, is dead. He was editor of the *Revista de Hygiene y Polica Sanataria*, also secretary of the Editorial Committee of the Gaceta Medica Catalana.

THE case of the young Paris physician, Laporte, who was arrested, tried, and sentenced to prison for performing a craniotomy which proved fatal to the woman, has aroused great indignation in both the medical and lay press of Europe.

MEASLES AND MUSIC.—An orchestra composed of women was to give a concert in a small Pennsylvania town recently, but when the time came not one of them appeared. Inquiry revealed the fact that all the members had been stricken with measles.

DR. MARIACHEEL, of Odessa, Russia, has lately castrated fourteen times and operated on the vas deferens thirteen times for enlarged prostate, with the result of benefiting none of his patients, and sending two of them to the insane asylum as a result of his interference.

YELLOW FEVER INOCULATION.—The inoculations of Dr. Dominigoes Friere in South America are reported to be successful and to have reduced the mortality in 13,000 cases to 0.4 per cent. If this be so, we may bid "Yellow Jack" a fond and affectionate farewell.

Our excellent contemporary, the *Medical Times* of New York, celebrated its silver anniversary in its December issue. Twenty-five years of life well spent is an enviable record, which we trust our contemporary will continue to deserve until it celebrates its golden jubilee.

A hot battle has been waged in San Francisco over an attempt, which was defeated, to affiliate the Hahnemann Medical College with the medical department of the State University. Dr. Donald Maclean, of Detroit, and other "fust-class fightin' men," took part in the movement.

Sir Wm. Roberts, M.D., who delivered the Harveian Oration before the Royal College of Physicians of London last month, took for his subject "Science and Modern Civilization." His remarks were mainly on the life and work of Wm. Harvey, the discoverer of the circulation of the blood.

A triple birth was recorded recently at the Health Office of Yonkers, N. Y., in which two of the children were united face to face by a ligament extending from the neck to the lower part of the abdomen of each. Both were boys of small size and they lived but an hour after birth. The third child, a healthy girl, survives.

Bellvue Hospital Medical College has now a new college building, the old one having been recently destroyed by fire. The corner stone of the new building was laid by Dr. Lewis A. Sayre. It contains, among other things, a small vial of antitoxin and a tube of spores of the bacillus aerogenes capsulatus. The new building is located on the corner of First Avenue and Twenty-sixth Street.

Dr. John Ginteras, in his report of his work of observation in the Southwest, says that "Cuba is the natural breeding ground for yellow fever, and will continue to be so as long as it remains under Spanish rule; that the Spanish authorities are criminally indifferent and negligent to the spread of fever; and that the island in its present condition is a dangerous menace to the public health of the United States."

Michael Angelo as an Oculist.—A curious discovery is reported to have been made at the Vatican—that of a collection of prescriptions for treating various diseases of the eye, in the handwriting of Michael Angelo. It is supposed the great sculptor suffered from eye troubles, and obtained the prescriptions from those from whom he sought advice. As Michael Angelo died in 1546, when little was known of eye diseases, it will be interesting to learn of what the prescriptions consist.

The description of an Indian labor, as given by Dr. McCoy from his experience at the Nisqually agency, will give an excellent idea of the assistance which is tendered the Indian woman in her confinement. The midwives, of whom there are two in attendance, call upon the Great Spirit for help in a muttering tone, and in the same tones name over the parts immediately connected with the parturient effort, and often all the joints and limbs of the body. By applying their hands to the abdominal walls they try to ascertain

the position of the fetus *in utero* and usually to correct malpresentation. They use oil to anoint the parts, and just before the expulsion of the child give medicines to increase the pains.

Kipling on Doctors.—Rudyard Kipling, at the annual dinner of the Harveian Society of London, replied to the toast of "The Visitors." He said he had been thrown much in the company of medical men in all parts of the world, and he admired them. He had seen them going to certain death with no hope of reward, because it was "business." He had also seen them handling cholera and smallpox, and when dying therefrom wiring for a substitute. He had seen them in Vermont manage a practise twenty miles in each direction, driving horses through eight feet of snow to attend an operation ten miles away, and digging their horses out of the snow and proceeding. It was one of the proudest things of his life, he said, to have been associated with "real fighting men of this class."

Koch's Rinderpest Remedy.—The Government of the Cape of Good Hope is now regretting the money spent in securing Koch to elaborate a protective serum for use against the rinderpest. The undertaking has ended in absolute failure, for the inoculation has had no effect in preventing the cattle from dying of the disease. It is said that Koch is about to return to South Africa to renew his experiments and try once more to make an effective serum. The *Medical Press and Circular* says that the Cape Government "has not found that its introduction of a German professor into the colony has had any other effect than that of costing it a large sum of money. Perhaps upon the next occasion that some official bacteriological investigations are required it will bear in mind that science made in Germany is no better than science made elsewhere;"—and our contemporary might have added, it has of late acquired a decidedly commercial character.

Professor Tarnier died on November 23 from a malignant intestinal growth which had increased very rapidly of late and which gave rise upon the day of his death to profuse and fatal hemorrhage. His end, however, was quiet and painless, and there were present his old pupils Pinard, Budin, Bonnaire, and others. He had been for some time surgeon to the Maternity Hospital and Professor of Midwifery at the Faculty of Medicine of Paris; he was also a member of the Academy of Medicine and Commander of the Legion of Honor. He was without doubt the chief obstetrican in France, and very many accoucheurs of to-day have been his pupils. His writings include the "Treatise on Midwifery," which has become classic, and which he began in collaboration with his pupil Chantreuil, but it was finished on the death of the latter with the assistance of his pupil Budin. He was the inventor of a traction forceps with a separate traction handle, otherwise known as the "*forceps à aiguille.*" He was not a good speaker, but his clinical teaching at the hospital was of the very first kind. He was the introducer of the antiseptic system into midwifery, and thereby converted the old maternity hospitals, which had been hotbeds of puerperal fever, into healthy places. He was seventy years of age at the time of his death.

NEW PUBLICATIONS.

A CLINICAL TEXT-BOOK OF SURGERY.

The scheme adopted in this work on surgery is somewhat different to that usually in vogue in standard manuals. The relation in which it stands to surgical handbooks is much the same as that which Hare's, Musser's, and Vierodt's works on medical diagnosis bear to standard text-books of medicine.

The practical part of the surgeon's work is limited to two questions—"What is the disease or injury?" and "What is the proper treatment?" While the author in no way undervalues the importance of a profound study of surgical pathology or bacteriology, the present work confines itself to a solution of the two questions propounded. The arrangement of the present volume is such that any surgical reference can be made almost regardless of the index. The attitude assumed by the author in regard to surgical science generally seems to be thoroughly modern and in full accord with the teachings of the best masters. The interesting collection of skiagrams, at the end of the book, testify to the modern spirit pervading the work.

The book is an excellent example of the publisher's craft. It is a handsome volume, copiously illustrated, and the presswork is all that the most critical could demand.

A Clinical Text-book of Surgical Diagnosis and Treatment for Practitioners and Students of Surgery and Medicine. By J. W. Macdonald, M.D., Graduate in Medicine of the University of Edinburgh; Licentiate of the Royal College of Surgeons, Edinburgh; Professor of Surgery in Hamline University, Minneapolis, etc. 328 Illustrations. Cloth, $5.00; half morocco, $6.00, net. Philadelphia: W. B. Saunders.

PRACTICAL DIAGNOSIS.

The profession have been quick to realize the value of Dr. Hare's very practical and scientific work on medical diagnosis by calling for a second edition a year after the first appeared. The plan of the work is somewhat different to that of others who have written on medical diagnosis. There is no taking up of diseases and describing their symptoms. This is the reverse of the natural mental process, which is by symptoms to discover the disease. The work is divided into two parts, the first dealing with "the manifestation of disease in organs," the second on "the manifestation of disease by symptoms." The aim is to assist the practitioner by the aid of any marked symptom to discover at once the diagnosis. If a patient be found with headache, in the chapter on headache and vertigo will be found the differential diagnosis and the diagnostic significance of various causal factors.

The value of the work is such as will be immediately grasped by the practitioner. It is needless to say that the literary contents are such as ought to be expected from Dr. Hare's graceful and prolific pen.

The plates and illustrations are very numerous, and skilfully elucidate the text. The work is one which the general practitioner will find it necessary to possess.

Practical Diagnosis. The Use of Symptoms in the Diagnosis of Disease. Second Edition, revised and enlarged. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia. Illustrated. Cloth. Price, $4.75. Philadelphia: Lea Brothers & Co.

LITERARY NOTES.

The initial number is received of *Current Thought*, Cleveland, O., in the form of a quarterly journal. Heretofore the publication has been issued as paper-covered books, called Current Thought Library. Mr. C. Elton Blanchard, the editor of this journal, was formerly publisher of the *Cleveland Medical Gazette*, and is an active student of anthropological questions, being a lecturer and director of the American Institute of Anthropology. The medical profession will find much of interest in *Current Thought*.

Beginning with the January, 1898, issue, Messrs. John Wright & Co., of Bristol, England, will publish a foreign edition of *The Laryngoscope*.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

The Surgery of Cerebral Tumors.

Von Bergmann (International Congress at Moscow), in a paper on this subject, spoke of the value of exploratory opening of the cranial cavity, and of the advantage of using Doyen's instruments for this purpose. In illustration of the disappointment which the surgeon may meet with in cerebral cases, von Bergmann mentioned that during the last three years he had freely opened the cranial cavity on six occasions for supposed tumors; in five of these the tumor was nowhere to be found, and in the sixth, when discovered, it was impossible to remove it.

The dangers and complications which attend operations on the brain, in addition to hemorrhage and septic infection, which are avoidable, are as follows:

1. *Shock.*—In seventy-five cases death resulted from this, either during or soon after the operation, in fourteen.

2. *Epilepsy.*—Inasmuch as the operation necessarily entails the formation of a scar, involving the cortex of the brain, it is evident that a focal epilepsy may follow upon an operation for cerebral tumor, just as it may do upon a scar of accidental origin.

3. *Hernia Cerebri.*—In many cases it may be impossible to prevent this complication (which may result in death), either by the most skilful replacement of the flap of bone elevated at the operation, or by relieving the intracranial pressure by tapping the lateral ventricle.

4. Hemiplegia, as a sequel of the operation, has been frequently observed by von Bergmann and by other surgeons.

Statistics show that in seventy-two per cent. of the total cases the expected tumor was not found. In the twenty-seven cases in which a tumor was revealed by the operation, in the majority of cases it was situated in the ascending frontal and parietal convolutions, and in these the diagnosis was clear and definite, and the results of the operation were the most satisfactory. —*Centralblatt für Chirurgie.*

Incision of the Pericardium.

While a number of methods may be employed to remove purulent exudate from within the pericardium when it is of considerable size, most of these are not so applicable to small quantities of exudate. The weightiest consideration in the matter is the position of the anterior edges of the pleura as regards the anterior thoracic wall. The space between the pleura in front is not very uniform in size and position. Small amounts—not more than one hundred and fifty cubic centimeters—of purulent pericardial exudate do not alter the

position of the heart and pericardium, but a number of different diseases of the internal organs materially change the position of the thoracic viscera. In general it may be said that there is more room for a longitudinal than for a transverse incision. Despite the various positions possible to the pleura in front, there are certain points that act as guides. An incision made between the fifth and seventh costo-sternal articulations avoids the pleura and pericardium. An exploratory puncture made in this line with a fine needle which is inserted only moderately deep (1.5 to 2.5 centimeters) is absolutely without danger. The tubercle of the sixth left sterno-costal articulation serves best as a guide for the skin incision and is usually easy to find on the surface.—SINOGENSKY.

THE MANAGEMENT OF THE ARM AFTER AMPUTATION OF THE BREAST.

At a recent meeting of the Medical Society of London Mr. Cotterell gave it as his opinion that it was not best to secure the arm to the body, but, on the contrary, to keep it at a right angle with the trunk by means of a suitable apparatus. In support of his view he presented a patient who had undergone amputation of the breast with excision of the pectoralis major. She could dress her own hair, and there were thus far no signs of cicatricial retraction.

MEDICINE.

IS RISE OF TEMPERATURE BENEFICIAL?

It has long been a vexed question whether the rise of temperature which occurs in fever is beneficial to the patient or the reverse, and this subject has come specially to the front since the introduction of the cold-bath treatment of typhoid fever. The experiments of Loewy and Richter (*Virch. Arch.*, vol. cxlv) are of considerable interest in this connection. They raised the temperature of rabbits, sometimes as far as 107.5° F., by irritating by puncture the point in the corpus striatum regarded as the heat-regulating center. The temperature remained high for months, and could be raised by a fresh puncture whenever it tended to fall, and the rabbits were well in every other respect. They were inoculated with pneumococci and with the organisms of fowl cholera, swine erysipelas, and diphtheria, and the course of these infections was always favorably influenced. None of the animals died sooner than the control rabbits, and some recovered from what should have been fatal doses. The corollary to these experiments is supplied by Fischl (*Prag. Med. Wochenschr.*, 5 and 6, 1897), who studied the influence of cold on the disposition to infection. The temperature of rabbits was artificially lowered 10° C., and cultures of pneumococci of different virulence were injected into the vein of the ear, when it was found that the number of rabbits which were manifestly ill with the weaker cultures, and which died with more virulent cultures, was much greater among those which had been exposed to cold than in the controls. The reason for this result is doubtful, but it is worthy of note that after infection there was a marked leucocytosis in the blood of the control

rabbits, which was not found in those whose temperature was reduced. There are now also a number of experiments on record showing that an artificial leucocytosis, however produced, usually has a favorable influence on the course of infections (Jakob).—*The Practitioner.*

Lumbar Puncture.

Monte, of Vienna, in the *Medical Press and Circular* enumerates the following conclusions, to which he is led by his experiments in lumbar puncture of the spinal cord in basic meningitis of tuberculous nature:

1. Tapping, as a diagnostic or therapeutic adjunct, is quite worthless according to my own experiments; but it must be borne in mind that other investigators have discovered proof positive in the cerebro-spinal fluid of the tuberculous bacillus, as well as cultivation in other animals, to justify the assertion that it is constantly present. My own opinion is that a negative result does not destroy a positive clinical diagnosis.

2. In acute cases of meningitis cerebro spinalis the cerebral fluid does not contain morbid products, which if applied to animals, as Heubner has shown, may seem to verify clinical observation.

3. When the acute stage has been passed, and the hydrocephalus is present, no diagnostic assistance can be obtained from the examination of the fluid.

4. As a therapeutic agent it is equally inefficacious in meningitis cerebro-spinalis and meningitis tuberculosa. I must qualify this by saying that individual cases do improve when operated on early and repeatedly, and when large quantities are abstracted. I recollect one in private practise of two months' standing that improved after each tapping, but ultimately died after three days' illness.

5. My operative experiments are not sufficiently large in meningitis, chronic hydrocephalus, or chronic hydrocephalus in connection with tumors, to justify a critical record of their worth.

6. Further experiments are necessary to determine the quantity of fluid to be abstracted, the interval of time that should elapse between the operations, and how far the therapeutical value, if any, can be demonstrated.

The Semeiological Value of Reflexes.

In a discussion before the French Academy of Sciences the subject of the semeiological value of reflexes was considered. M. Mendelsohn, of St. Petersburg, stated that in the results of the experiments of M. Rosenthal and himself the normal reflexes—viz., those which were provoked by a slight excitation—follow the longitudinal courses and pass by the upper part of the medulla, and that part of the bulb designated by the name of the cervico-spinal, and which is the seat of numerous reflexes.

A reflex follows the course of the least resistance.

Reflex may be modified more or less, thus producing paralysis or convulsions. These latter may be of the order reflex or anatomical, and hence the

value of reflexes is very great in differential diagnosis. In order to derive all possible benefit from them it is necessary to study them not only from the point of view of their intensity, but also to examine the curve of muscular contractions produced by sensory excitation.

The semeiological value of reflexes is relative and not absolute.

Clonic Movements in Syringomyelia Exclusively of Medullary Origin.

Marinesco has been studying, with various registering apparatus, the clonic movements in this disease affecting mostly the fingers. They sometimes assume the character of a partial epileptic attack of cortical origin, and have been attributed to the motor zone of the brain. He finds, on the contrary, that they are convulsive attacks resulting solely from the medullary irritation, independent of any cortical intervention. — *Bulletin de l'Academie de Médecine.*

PATHOLOGY AND BACTERIOLOGY.

Antistreptococcic Serum.

This is still the subject of much discussion, and an interesting paper by Van de Velde is found in the *Arch. de Méd. Expér.* He studied the question whether antistreptococcic serum prepared by means of one variety of streptococcus is equally active against others. As preliminary to the investigation, he observed the character of a large number of streptococci from different sources, and while he found small variations in their manner and growth and in the appearance of cultures, like many others he failed to obtain any criterion by which they could be separated into different species. Selecting two varieties (A and B), one of which he obtained from a sore throat and another from a case of puerperal septicemia, he tested the effects of their respective sera. He found that the serum of a horse immunized against streptococcus A had a very marked effect when tested with this organism, five cubic centimeters protecting a rabbit against five thousand times the fatal dose, whilst the same quantity protected only against fifty to one hundred times the fatal dose of streptococcus B; further, that while the serum of a horse immunized against streptococcus B protected in correspondingly large doses against this streptococcus, it had practically no effect against a single pathological dose of streptococcus A. The serum, therefore, of the two varieties of streptococci had only high effect toward the corresponding organism. Similar results were obtained with other varieties of streptococci, including the culture used by Marmorek in his researches. He has also entered into the question of a preparation of a serum of multiple efficiency, and has found that this is possible. For example, a horse may be immunized against streptococcus A and streptococcus B by injections of each of the organisms, so that its serum has an equally powerful antistreptococcic action against both.

Bacteriology Run Mad.

The Berlin correspondent of the *Standard* telegraphs this great discovery by a German professor: "Professor Marpmann, of Leipsic, has recently examined sixty-seven kinds of ink, such as are used in schools, and has arrived at results which show that it may, under certain circumstances, be dangerous to wound oneself with an inky pen. Most of the inks he examined were made of gallnuts, and contained a large quantity of micrococci bacteria and fungi. One sample, made of nigrosine, an aniline pigment, and taken from a newly opened bottle, also contained quantities of fungi and bacilli. From a red and a blue sample the Professor cultivated a bacillus which killed a mouse in four days; but they were taken from bottles which had been open for three months."

Is there any known substance, we wonder (says the *Westminster Gazette*), in which a German professor could not cultivate a bacillus which would kill a mouse in four days? It seems to us rather creditable to the mouse to have lived four days. The moral is: Don't drink ink, or wipe your pen on your lips. The temptation to do these things is so besetting that these cautions ought to be widely disseminated. By dint of great determination we have ourselves resisted the impulse to take a draught of ink in the early morning.—*Food and Sanitation.*

The Thyroid Gland in Jaundice.

Lindemann (*Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin*, cxlix; *Gazette Hebdomadaire de Médecine et de Chirurgie*, November 28, 1897) has observed in four persons who had died with symptoms of obstructive jaundice due to cancer of the ductus choledochus communis signs of an excessive amount of colloid material in the thyroid gland. He concludes that in those cases, the antitoxic function of the liver having been notably impaired, the thyroid was excited to vicarious action by the toxic substances circulating in the blood.

THERAPEUTICS.

Treatment of Articular Rheumatism by the Local Application of Salicylate of Methyl.

Siredey (*Presse Méd. Belge*, Bruxelles) draws attention to this method of treating articular rheumatism, although it is by no means new, having been first tried by Bochefontaine in 1879. Methyl salicylate is a volatile, mobile liquid, of a penetrating but not disagreeable odor, which is little felt if the parts to which it is applied be carefully enclosed in gutta-percha, and then bandaged. One or two drachms should be applied to each joint, and up to a half or one ounce may be employed, without causing disagreeable systemic effects. Siredey thinks that good results are obtained by the application of not more than about two drachms altogether at one time. Beyond producing

slight redness, it does not irritate the skin locally. It contains ninety per cent. of salicylic acid, while sodium salicylate contains eighty per cent. By this method of application any irritation of the stomach is avoided, and ringing in the ears, etc., have been only rarely observed. This immunity is probably due to slowness of absorption from the skin, which prevents any great accumulation in the blood at any one time.

After considerable experience, the author thinks that administration of salicylate of sodium by the stomach is much preferable in acute polyarticular rheumatism, unless in cases where it seriously disturbs digestion. But in chronic and subacute cases, especially in the joints of the extremities, he prefers the local application of methyl salicylate, as he finds its action more efficacious on the whole, and more persistent. In gouty joints he finds that it also lessens the swelling and pain.—*Edinburgh Medical Journal.*

"Tuberculin R."

Considerable interest has been excited of late by the introduction by Koch and his assistants of a new tuberculin known as "Tuberculin R." It is prepared by vigorously pounding in a mortar dried cultures of tubercle bacillus and adding distilled water. It is then centrifugalized in a machine adapted for the purpose. The clear but opalescent fluid which collects at the top contains no tubercle bacilli, but the remainder containing the débris of the tubercle bacilli forms Tuberculin R. In order to ensure its preservation twenty per cent. of glycerin is added. It is claimed for it that it may be employed with perfect safety and that it induces no reaction. It has been used in London in a considerable number of cases, but no very definite results have hitherto been published.

Carpaine.

Carpaine, the alkaloid of *Carica papaya*, is said to act as a febrifuge even when quinine is non-effective, and also to possess a very strong action on the heart. On analysis the formula $C_{14}H_{26}NO_2$ was obtained for the alkaloid. The hydrochlorate, nitrate, picrate, and other salts have been obtained in crystalline form. In addition to the alkaloid a glucoside has also been isolated, which forms a white mass of small needles, and is very hygroscopic. It does not reduce Fehling's solution until hydrolyzed —*Druggists Circular.*

Carbon Disulphide Poisoning.

Stadelmann had an opportunity to observe three cases of chronic poisoning by carbon disulphide, taking place in a vulcanite factory. In addition to the symptoms of extreme digestive disorders, there were tremor, giddiness, ringing in the ears, with poor hearing, inability to sleep, muscular weakness, trembling, more or less marked ataxia, strong increase of mechanical muscular irritability, disturbance of sight and sensibility, Romberg's symptom, incontinence of urine, and sexual impotence.—*Berliner Klinische Wochenschrift.*

THE MEDICAL AGE

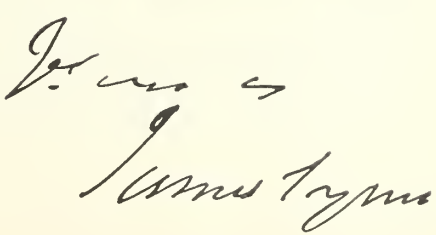
VOL. XVI. DETROIT, JANUARY 25, 1898. No. 2.

ORIGINAL CONTRIBUTIONS.

PERSONAL REMINISCENCES OF SYME.

BY HIS FORMER PUPIL, DONALD MACLEAN, M.D., LL.D.,
Ex-President American Medical Association.

In the winter of 1858 the writer, a very young medical student, began to attend the clinical teachings in the Royal Infirmary of Edinburgh. In the history of that institution and of the medical school connected therewith, it is freely admitted that there never had been a time when the fame of the faculty stood higher than it did then. Syme, Simpson, Bennett, Christison, Gairdner, Begbie and others constituted a teaching faculty rarely if ever equaled by any medical school. It was under those inspiring conditions that the writer first had the honor of becoming acquainted with Professor Syme, whose fame as a practical surgeon and teacher has been enlarged, certainly not diminished, by the lapse of time. It is not the purpose of this paper to review Syme's professional career, but rather to record, for the entertainment of those who may feel an interest therein, a few personal reminiscences illustrative of his personal character and the relations which existed between the great surgeon and his humble pupil, the writer of this article.



At an early stage of my medical studies the plain, matter-of-fact method of clinical teaching characteristic of Professor Syme impressed me so deeply that it became the object of my ambition to become associated with him in his

work in the wards of the Royal Infirmary. In a medical school which numbered many hundreds of students from all parts of the world, many of them sons, friends, or pupils of former students of Professor Syme, it can be readily understood that it was no easy matter for a youth whose early years had been to a large extent spent, as mine had been, in the backwoods of Canada, and who was devoid of any special association of a professional nature with Edinburgh people, to obtain favorable consideration for appointment of any kind in the Royal Infirmary. Perseverance and determination, however, overcome many difficulties, and in this instance, after several disappointments, I succeeded in gaining my object. It so happened that in the summer of 1859 a fellow student, who had the privilege of a position on Professor Syme's staff, desiring to avail himself of a few weeks' holiday, suggested the feasibility of my filling temporarily the position which he occupied. Consequently, once again, a request was made to the Professor that the writer should be accorded the privilege of taking the position held by his friend during the latter's absence. On this occasion I had the advantage of the cordial support of the Professor's house surgeon, Dr. Joseph Bell, to whom I have always felt sincerely grateful for innumerable acts of kindness during my student days and since. With characteristic brevity and decisiveness, the Professor quietly remarked in response to my petition, "Very well, sir." The next day found the writer in line with the other members of the Professor's staff, joyfully assisting in the regular work of the Royal Infirmary. This work consisted of the examination of *new*, the dressing and treatment of *old*, patients, and assisting at the performance of operations in the amphitheater, etc. Before many days had passed in this work, a case occurred which elicited from Professor Syme a direct test question to his staff, as follows: A man had received a blow on the head, cutting through the scalp and laying bare the bones of the skull to a slight extent. After some days this patient developed alarming symptoms, namely, rapid pulse, severe headache, vomiting, delirium, etc. (The clinical thermometer had not then been invented.) Having looked him over, the Professor said to those about him: "What do you think is the matter with this man?" After a few moments of silence on the part of all present, the writer ventured the opinion that it was a dural matral abscess, and the Professor very pleasantly replied, "Quite right, sir." The next question was: "What do you think the result will be?" to which the reply was made, "Death." The Professor expressed his approval of the diagnosis and prognosis, and ulterior facts fully vindicated both. This incident, simple as it was, has always been a very pleasant memory to me.

The limit of my appointment on the staff was three months, and the time soon passed away. With feelings of intense regret and anxiety the flight of time was noted, and the sad fact appreciated that my association with work so congenial was soon to cease. As the time approached, however, I was in one way or another made bold enough to hope that an exception might be made in my case and an arrangement arrived at by which I might continue on the staff during the ensuing winter session of six months. With a feeling of considerable trepidation I ventured one morning to invade the sanctity of Professor Syme's private professional headquarters, at No. 2 Rutland street,

where I made known to him my ambition to continue in the service as a member of his staff for six months longer. His reply was: "*I will be most happy, sir; you have been very active and useful to us.*" I doubt whether any soldier seeing his name honorably mentioned in special despatches ever felt greater pride and satisfaction than I did when I heard those few simple words, coming as they did from a man who never condescended to flattery or humbug of any kind, a man who was universally known as "a man of few words" and one whom every one understood as saying exactly what he meant and meaning exactly what he said. Within a few days after this interview I found myself occupying a very responsible and important position on the Professor's staff, a position which I succeeded in retaining for a period of eighteen successive months; during which time it so happened that many of the greatest and most famous of all Syme's achievements as an operating surgeon were performed. His staff of assistants met with him every day in his consulting-room at the Royal Infirmary, between the hours of twelve noon and 2 P.M. In our work there many visiting surgeons were delighted to participate, and the Professor was always willing to listen respectfully to the opinions of every one present, even his youngest assistant, whenever the conditions seemed favorable for such an interchange of views. Moreover, it always afforded him pleasure and made his face light up in a most expressive manner when an original or reasonable diagnostic opinion was expressed, even though it might not ultimately prove to be correct. As an illustration of this the following incident is recalled: A patient had a large tumor in the gluteal region, which presented peculiar and puzzling features. All eyes were fixed upon the sufferer and his tumor, as well as on the Professor as he examined it. Suddenly one member of his staff, namely, Mr. Thomas Annandale, who since then has for many years filled with the greatest ability and success the chair then occupied by Professor Syme, placed his hand on the tumor in a peculiarly suggestive manner, and the Professor, looking up at him, said, "What did you expect to find there—pulsation?" Mr. Annandale replied, "I thought I might, sir, and I think I have." The Professor immediately made the same manipulation and with the same result, and to this day I am able to recall with sincere pleasure the expression of exultation which passed over the great surgeon's face when he found that his youthful assistant had made a brilliant diagnosis in a case of especial difficulty and importance. The same method of examination has many times been resorted to by the writer with advantage, and has been taught by him to several generations of students. The case proved to be one of gluteal aneurism, for the relief of which Professor Syme a few weeks afterwards performed one of his greatest and most "historical" surgical feats. It so happened that the writer had the honor of being a humble but active assistant on the memorable occasion.

Surely it will not be considered improper or in bad taste for the humble assistant in recalling these personal reminiscences to place on record here a recent episode associated with this far-famed case. At the meeting of the British Medical Association in Montreal a few weeks ago the address in surgery was delivered by Mr. Mitchell Banks, the eminent surgeon of Liverpool. His address made a very profound and favorable impression upon all who heard it,

and certainly on no one more so than his old classmate—myself. At the conclusion of his eloquent oration, every word of which was listened to with the greatest pleasure, I ventured to step upon the platform and, holding out my hand, congratulated him upon the eloquence and beauty of his address. At the conclusion of my remarks he very naturally asked my name, which I promptly gave him, and instantaneously, in terms which were enthusiastic and altogether too flattering, he expressed his delight at meeting once more so old and intimate a friend as myself; and at once he proceeded to say to the group of members which had by this time gathered around us: "If I live to be a hundred years old, I can never forget the day when Professor Syme performed his great operation for gluteal aneurism. Among other things I recollect that at his right hand, and actively assisting him, there stood a smooth-faced, fair-complexioned, enthusiastic young man, with a great mass of auburn hair on his head." The writer quietly bent that identical head down, and said, "Well, sir, please just look at it now"—all the auburn and most of the hair were gone. Such was the reunion of two of Professor Syme's pupils after a separation of more than thirty-five years.

Professor Syme has always had the reputation of possessing an austere, reserved manner, and in the opinion of those who knew him best this impression will be pronounced well-founded. At the same time it is no less true that he possessed the faculty of making himself very agreeable to all such as had any claim to his kindly recognition. To the venerable nurses, such as Mrs. Lambert and Mrs. Porter, who served in his wards with the utmost fidelity and industry for half a century or thereabouts, nothing could exceed the kindness and geniality of his manner. When either one of these devoted characters happened to be indisposed, he was always ready and willing to give them his kindest and best care. Whenever an opportunity occurred, he was proud to call out and show forth the surgical intuitions and marvelous diagnostic power of these venerable women, who were not "trained nurses," such as we have to-day, but were educated in the school of experience to a degree which, so far as my observation goes, made them equal in most respects to the best "trained nurses" I have ever known. For example, a young man, pale and emaciated, appeared in the Professor's waiting-room one day with a fluctuating swelling just above his right ankle. After careful examination by all present, various opinions having been expressed as to the diagnosis, the Professor, looking around to Mrs. Lambert, said, "Mrs. Lambert, what do you think?" "I think it is a psoas abscess," was her modest but confident response; and so it proved to be, the autopsy a few weeks afterwards fully corroborating her diagnosis. Having made the above warm reference to this venerable nurse, who had grown old in the service, I feel justified in adding a few words more in regard to her. In so doing I feel certain that of all the pupils who studied surgery under Professor Syme during Mrs. Lambert's long service, there does not survive one who will not feel gratified by any kindly or appreciative testimony which may be recorded in her honor. Mrs. Lambert had her own suite of plain but comfortable rooms in the Royal Infirmary. One feature of her housekeeping, upon which she especially prided herself, was her potato soup, or, as she called it in the

Edinburgh vernacular, "tattie soup." When any member of Professor Syme's staff happened to be delayed by his duties beyond the regular lunch hour, Mrs. Lambert was ever on the alert with an offer of a plate of this soup, with regard to which she always declared, "It's a wee bit better to-day, sir, than usual." It almost seems that I can taste that "tattie soup" to this day. At all events, the memory of the generous kindness of the good old heart of Mrs. Lambert never has and never can fade from my memory. Mrs. Lambert had one son, a sailor boy, who in the course of a cruise on his ship found himself in the harbor of Melbourne, Australia. Here he was taken ill with typhoid fever. The physician who attended him insisted that he must be sent to the hospital until able to travel. The captain of the vessel declared that such an arrangement was impossible, and that the poor fellow would have to take his chances of being buried at sea. The doctor, loath to abandon his patient to what he regarded as certain death, proceeded to make further inquiry about him. On ascertaining exactly who the boy was, namely, the son of the kind-hearted old nurse who had so often cheered his own young heart with her prodigious plates of "tattie soup" when he was a struggling student in the Royal Infirmary, the doctor hesitated no longer, but, taking all the responsibility and assuming all expense, had the sailor lad sent to the hospital, where, after many weeks of careful treatment, recovery took place, after which he had him sent comfortably and safely back to his good old mother. "Cast thy bread upon the waters: for thou shalt find it after many days."

My midsummer vacations were spent for the most part in Edinburgh. Syme's wards, the post-mortem theater and the University dissecting-room afforded me abundant facilities for the most profitable kinds of study and work. I always enjoyed free access to the dissecting-room through the kindness of the then head demonstrator, now the eminent scientist and first of living anatomists, Sir William Turner. Brief but most enjoyable visits, however, were occasionally made to the ancestral home of my family, on the Isle of Mull, on the west coast. My kind and affectionate host, a very near relative, on the occasion of my first visit when a freshman medical student, dubbed me "The Professor," and, as usually happens with nicknames, mine very soon became the common property of every tenant, every employee, and every guest of the hospitable old place, and to this day when I return, as I have occasionally done in later years, "The Professor" is my universal designation in perpetuation of a good-humored joke perpetrated forty years ago. The fact of my having been for many years entitled to that (*more or less*) honorable appellation has no possible association with the pet name by which I am still remembered by those loyal and kind-hearted old friends. This leads me to record here an anecdote involving my relations with Professor Syme. During one of my visits to the Highlands, after Mr. Syme and myself had become fairly well acquainted with each other, one of the foremen on my cousin's estate came to him one morning to inform him that a high-bred Ayrshire bull was ill and evidently suffering great pain. No one had anything to suggest for the poor animal's relief. At last one of the men said, "Don't you think, sir, that we might consult 'The Professor?'" The Laird smiled but made no reply. After breakfast, however, he asked me to observe the animal as he

walked about in front of the windows of the breakfast-room and give my opinion as to the ailment. The appearance and actions of the unfortunate animal seemed to be quite characteristic, and I expressed the confident belief that it was a case of calculus, causing serious obstruction of the urethra; and I was anxious to operate. My cousin the Laird at once ordered the men to have the patient placed in a suitable posture and held safely. Then with a common scalpel and a pair of ordinary dressing forceps from my pocket case, I had the satisfaction of cutting down and removing the obstruction, which proved to be a rough oxalate of lime calculus, the size of a good large marble. The present professor of clinical surgery in Edinburgh, Dr. Thomas Annandale, was at the time Professor Syme's house surgeon, and being a warm friend of mine, I naturally wrote him a full account of my operation: not only so, but I also sent the specimen to him. It never occurred to me that the affair would go any farther, but in this I was mistaken. Without informing me of his action, Mr. Annandale showed my letter and the specimen to "The Master," and in that way laid the foundation for a somewhat embarrassing surprise for myself and others.

On my reunion with Professor Syme, his staff and visitors, of whom several were distinguished foreigners, the professor greeted me as I entered the consulting-room with a show of cordiality which surprised all present, and none more so than myself. Then looking round the room and waving his hand in a very solemn manner towards me, in a most matter-of-fact tone of voice he said, "An eminent lithotomist." He made no further reference to the matter on that occasion, nor did he offer any explanation, at least in my presence. Nevertheless, I heard of the episode from a good many quarters afterwards, more particularly as to the look of astonishment and the depth of the carmine color which overspread the countenance of the "*eminent lithotomist.*" Notwithstanding Professor Syme's well known love of humor and thorough geniality of character, such a practical joke, especially at such a time and in such company, was an event of the greatest rarity.

No man could possibly be more temperate and abstemious in his habits than Professor Syme all through his life. Nevertheless he had a distinct feeling of dislike for that class of ostentatious hypocrites known as blatant teetotalers and temperance preachers. I very well remember the case of a boy of not more than twelve years of age who appeared at the *clinique* suffering from a peculiarly loathsome form of disease. The Professor, with an expression of infinite disgust on his face, asked the youthful transgressor the question, "Are you a teetotaler?" to which the unctuous little sycophant replied, "Oh, yes, sir." "I thought so," quietly remarked the Professor, with an expressive twinkle in his eye, and then proceeded to give directions for the management of the case. At his own dinner table, on my declining to be helped to champagne, the Professor, with an air of comical consternation, exclaimed, "Mr. Maclean, I hope you are not a teetotaler!" I replied promptly in the negative, and I told the truth.

(*To be continued.*)

THE RESTRICTION AND PREVENTION OF DIPHTHERIA AND SCARLET FEVER.*

BY CHAS. T. M'CLINTOCK, M.D., PH.D., DETROIT, MICH.

Diphtheria is the most dreaded of all the diseases of childhood, and with good cause. In all civilized countries the death-rate from the disease is high; according to some authorities, highest in America.

A recent French writer deplores the fact that the deaths in France exceed the births. He adds: "This heavy mortality is largely due to the prevalence of diphtheria."

Until within the past three years the hospital death-rate for this disease was from forty to sixty per cent. of all cases. In private—even in country—practise the mortality is at times as great and even greater. Nearly every country practitioner can tell you of whole families being wiped out of existence in a few weeks by this scourge. This death-rate is at least four times that of the yellow fever epidemic occurring this fall. Yet in the latter case people fled from the afflicted cities like frightened sheep. State and national governments gave their money and aid in the attempt to stay the disease; commerce was almost stopped; shotgun quarantines established. There were 468 deaths from the yellow fever. Now in the single State of Michigan, the Secretary of the State Board of Health says that there are about 1376 deaths due to diphtheria every year. Yet, save to note that a school has been closed, the public hears but little of diphtheria.

The disease was rare in this country until 1850. Since that time it has developed into a veritable plague. In the last twenty years yellow fever, smallpox, cholera and scarlet fever have steadily decreased. In England the death-rate from scarlet fever has fallen eighty per cent., while diphtheria holds its own. In our own country until three years ago the death-rate from diphtheria steadily increased.

Now there are causes, known or unknown, for this increase. Diphtheria is due solely to a disease germ, the Klebs-Loeffler bacillus, the bacillus of diphtheria, a little, infinitesimally small plant. So small are they that a space the size of an ordinary pin-head could hold ten million of them. However, they make up in numbers what they lack in size.

These little plants—these dreaded disease germs—in their growth, reproduction and dissemination are subject to laws and conditions, just as is the Canada thistle, or oak and elm trees. Under certain conditions of soil, moisture, heat and light they grow and multiply; change the conditions, they die and disappear. If we are to avoid the disease which these germs cause we must study their life history. We could spend months at this. Here I can only briefly sketch what is known of the matter.

Soil.—The natural habitat of the diphtheria germ is the human throat, preferably that of a child. The disease, however, may occur at any period of life from birth to old age. The vast majority of cases, the favorable soil, are in children from about two to ten years of age. Why these germs are unable to

* Read before the Sanitary Convention in Detroit, Dec. 9, 1897.

multiply in the throat of a suckling, or of an adult, is an interesting problem, but one that we cannot discuss here. Note this, however: Just as larger plants in unfavorable conditions may barely keep alive, without increasing, without spreading to adjoining soil, so it has been shown that diphtheria germs may at times live in the throat of an adult; the conditions are unfavorable, they keep alive but do not multiply, and the individual does not have the disease diphtheria.

Certain disease germs, as those of cholera and typhoid fever, seem to multiply outside the body — in milk, water, and sewage. Much has been written as to the relationship of diphtheria to ground, water, sewer-gas, and damp rooms. Now these harmful influences may weaken the body, produce catarrhal conditions of the throat, and so predispose the child to diphtheria, but they never produce it. There is no proof that the diphtheria germ ever multiplies outside the animal body, except in one condition that I will note later, or when artificially cultivated.

Heat and Moisture.—The germ grows best at about the temperature of the human body—95° to 100° F. It ceases to multiply if the temperature falls to 68°. This is one of the reasons that it does not multiply in sewage. It ceases to grow if the temperature is raised a few degrees higher than that of the body, and is killed at a heat of 136° to 140°. The germ grows only where there is moisture. It may remain alive but does not multiply in dried sputum, in dust, on dry clothing. Dried on cloth, it may live for one or two months. There are instances of apparent infection from rooms, clothing, and bedding, which seem to show that the germ in a dry state may live for months and possibly years. Like other particles of dust the germ clings to a moist surface; neither they, nor any other disease germs, are to be found in the breath of the patient; so, though they be emptied by the millions into the sewers, they do not, cannot rise with the sewer-gas. In coughing and gagging, the patient will often throw out particles of saliva and the diphtheritic membrane. These may contain thousands of the germs. Many a physician has paid with his life for his care in examining and treating the throat of his diphtheritic patients, the coughed-out particle striking his eye, nostril, or mouth, giving him the disease.

Sunlight.—Contrary to the conditions obtaining in higher plants, sunlight is fatal to all disease germs; even the most resistant of them are killed after a few hours' exposure to the direct rays of the sun. The lesson from this should be obvious, but through fear of faded carpets we shut out the best of all disinfecting agents.

Transmission. — Tuberculosis is a very common disease in cattle, particularly in dairy cattle. The probabilities are that many cases of this disease in man are due to milk, butter, and meat. Attempts have been made to show that diphtheria occurred in cattle and was disseminated by their milk. The facts do not warrant that view. It does seem to be proved, however, that the disease is occasionally spread by milk, a whole series of cases being confined to families obtaining their milk supply from one source. The probabilities seem to be in these cases, not that the cows have the disease, but that the milkers have come in contact with the disease in their families or associates.

A few diphtheria germs fall into the milk, and before this is cooled enough to prevent their growth they multiply. The diphtheria germ under favorable conditions will reproduce itself every fifteen to thirty minutes, each one of the progeny becoming an adult germ, and continuing this rate of increase. Calculate this, if you choose; you will find the offspring from one germ will at the end of twenty-four hours number more than a hundred millions. To lessen this source of danger it should be required that every dairy supplying any city with milk be regularly inspected by a competent veterinarian, the board of health refusing to allow any milkman to sell his product until he shows his certificate of inspection.

There are occasional cases of the disease which seem in all probability to have been acquired from pet animals, generally from kittens; very, very rarely from puppies. The evidence seems to show that the disease in chickens known as diphtheria is not the same as the human disease. But all the cases from these sources placed together form an insignificant part of the whole. Diphtheria is essentially a man-borne disease.

I have said that while other communicable diseases are rapidly decreasing, diphtheria holds its own in all civilized countries and seems to be increasing in America. Year by year we are becoming less a home and more and more a communistic people. Now the child leaves home at three or four years for the kindergarten. At school he no longer owns his own books or pencils, but draws them from a common stock. For moral instruction he goes with his fellows to the chapel and Sunday school; for play, to the public park, the athletic field, the skating rink. The small shop with its one clerk and proprietor is giving way to the great department store. The little factory is replaced by huge hives of industry, with hundreds or even thousands of operatives under one roof. Walking is given up for the crowded street-car. These changes in our social life facilitate the spread of communicable diseases. In London and other cities diphtheria and scarlet fever cases rapidly increase with the opening of the schools and decrease with their closing. In New York the medical inspectors have found many cases of these diseases in children presenting themselves for admission to the schools. I am not prepared to advocate the medical inspection of schoolchildren as a part of the work of the board of health. I do believe that every school-teacher should be trained to recognize the symptoms of these diseases. The board of health could well afford to supply teachers, and mothers on application, with colored illustrations of the appearance of the throat and skin in these diseases. With them should go a brief statement of the symptoms. Principals of schools might with proper precautions visit the contagious disease wards in hospitals and familiarize themselves with the appearance of these diseases. Of the greatest importance is the fact that these diseases may be communicated by persons who have not had and who do not have the disease themselves. At a time when diphtheria was rather prevalent in New York cultures were made from the throats of a large number of healthy adults; in about one per cent. of these persons virulent diphtheria germs were present. All that we know of the subject leads us to believe that if these germs are by any chance transferred to the throat of a susceptible child diphtheria will follow.

This disease certainly can be and probably often is transferred in kissing. Without arguing the question, I may say that in my opinion kissing is primarily a sexual act; as such it is justified and need not be railed against. As a salutation it is a pernicious, at times a dangerous, custom. The mother may be allowed to kiss her child; no other person should. The child should be taught as early as possible not to use its mouth as a receptacle for toys, marbles, money, pencils, and the like. By the way, provide the child with the softest of pencils, so that he can make a good, black mark without having to wet the point.

The literature on these diseases is full of cases where adults have carried the infection from one child to another. Despite all our care, we have a case of the disease. How are we to manage the patient and the sick-room to prevent the spread of the infection? I will leave the details of this question, as well as that of protective inoculations, to others. I do want to say, however, that with proper conditions the disease can be handled as a rule without transmitting it to others. In my laboratory we handle every day untold millions of these diphtheria germs—that, too, in delicate glass tubes and flasks that occasionally break. We give the disease to animals and increase the malignancy of the germ. These animals are handled, fed, at death are dissected, the disease germs are recovered, and the dead bodies disposed of. Yet we do not contract diphtheria or transfer it.

Dr. Grancher, in Paris, reports that during a certain period there were received in the diphtheria ward of one hospital 1741 patients; of these 153 were found after admission not to have diphtheria, and yet, owing to the care exercised, not one of these children contracted the disease. Brilliant work that! Generalship that on the battlefield would win honor and a nation's gratitude!

I have said but little of scarlet fever. We do not know the cause of the disease. We are sure, however, that it is a living, multiplying organism. The contagium is more readily disseminated, and on books, toys, bedding, etc., is more lasting than that of diphtheria. All that I have said in regard to the prevention of diphtheria applies to this disease.

There are two things I wish to call attention to, although they do not properly pertain to this subject:

1. People who rent houses should demand of the owner or agent a written statement that no case of tuberculosis, diphtheria, or scarlet fever has been present for a year, or if there has been, a certificate from the board of health that the house has been disinfected or renovated, and is regarded as safe.

2. A physician, who probably sees more cases of diphtheria than any one else in this city, told me a few days ago that a number of physicians were not reporting their cases of diphtheria. The reason given for so doing is that if the family are not quarantined the wage-earners can continue their work. This means, of course, a few dollars more for the family; it also means the possibility of the spread of the disease into a hundred families. It means, it may be, the life of your child. To my mind this is criminal. The license of such a physician should be revoked, and he should be held for criminal malpractise.

IN MEDICAL CONCLAVE.

THE DETROIT GYNECOLOGICAL SOCIETY.

A meeting was held on Wednesday evening, January 12, at the office of Dr. F. W. Mann.

Dr. Charles G. Jennings opened a discussion on the question, "Can we prevent the mortality and morbidity of puerperal fever?" There were, he contended, no reliable statistics which would indicate the precise degree to which we had attained in general obstetrical practise in preventing septic complications in the puerperal state. In hospital practise we had more certain data, and the statistics of the Stockholm Hospital, showing 4000 cases of childbirth with 4000 complete recoveries, indicated that in hospital practise "deathless midwifery" had been achieved. No precaution would absolutely safeguard the possibility of infection from without, and he thought that in the practise of the most careful septic infection would occasionally intrude. The plea of autointoxication he regarded as a convenient one for avoiding personal responsibility, though there might be a suppurating ovary, or disease of some contiguous structure which might sometimes complicate the puerperal state. In conclusion he thought much had been done in the way of advance, and in his own personal observation he had seen the profession pass from conducting a comparatively dirty obstetric operation to a comparatively clean one Seeing that an aseptic obstetric operation involved quite as much labor, thought and responsibility as an aseptic surgical operation, he considered this branch of professional work very inadequately compensated.

A general discussion upon the various points touched upon by Dr. Jennings ensued.

The resignation of Dr. R. A. Newman as Secretary was accepted, and Dr. Fritz Maas was elected to fill this office.

WAYNE COUNTY MEDICAL SOCIETY.

At the regular meeting of the Wayne County Medical Society, Thursday evening, January 13, Dr. J. A. Patton read a paper entitled "The Treatment of Gastric Disorders from the Standpoint of the General Practitioner." The writer, in reviewing the recent considerable work accomplished in the diagnosis and special treatment of the morbid conditions of the stomach, took the ground that for the most part the technique of special work in the use of the stomach tube, bucket, transillumination apparatus and other appliances was of value chiefly in the hands of specialists skilled and experienced in their use; and that such procedures in the hands of enthusiastic but often unskilled general practitioners might be productive of harm. He emphasized the importance of a careful study of all the physical signs and subjective symptoms.

The paper met with general and favorable discussion.

THE DETROIT ACADEMY OF MEDICINE.

The Detroit Academy of Medicine met at the residence of Dr. W. R. Chittick on Tuesday evening, January 11, 1898. The essayist of the evening, Dr. W. J. Wilson, presented a paper entitled "Insidiousness of Contagion, with Special Reference to Obstetrics." He gave a number of actual and hypothetical illustrations of cases in which puerperal septicemia occurred as a result of accidental infection beyond the power of the attending physician to prevent; cases in which the infection had come from some other member of the patient's family, or had been unwittingly conveyed to the house by visitors, or had arisen through the use of some article without the consent or knowledge of the physician.

Drs. Robbins, Biggs, Maire, Chittick, Metcalf and Jenks took part in the general discussion. Among other interesting points discussed was that connected with those puerperal cases in which there was an autogenetic infection, due to gonococci, to the streptococcus pyogenes aureus, and to other morbific germs.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

At the weekly meeting of this Society, held Monday, January 10, the paper of the evening was read by Dr. Chas. W. Hitchcock, entitled "Hemorrhagic Pancreatitis." The history of the case recorded was one of unusual interest. It was a case in which the autopsy, clinical history, etc., conclusively established that death was from hemorrhagic pancreatitis. The patient himself had not mentioned any injury whatever in connection with his illness (which was only of fifty-four hours' duration), but after his death his friends were very active in seeking to set up a history of injury as the cause of his sickness and death, and they made claim under an accident policy. One or two physicians encouraged the claim thus set up, and the question at once arose as to whether injury could set up the disease in question. References to injury are very infrequent in the meager literature of the subject, a search of which, however, leads to the opinion that injury may stand in a causal relation. Fitz reports a case in which injury is assigned as the cause.

The paper was ably discussed by Drs. Troy, Maas, Jennings, and Tibbals.

A YOUNG lady traveling to Moscow constantly kissed and fondled a neat little dog belonging to another lady. The little animal seemed well pleased and acted very mannerly, but all remarked that it was sneezing constantly. After arrival in Moscow the young lady was first affected with a redness of the tip of the nose, which did not yield to any remedy; then the nose began to be painful, inflamed, and began to secrete mucus. The physician who was consulted diagnosed the case influenza. But as she constantly became worse, and the ulceration increased, a consultation was held, when the microscope revealed a case of *glanders*, which had evidently been transferred from a horse to the dog.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE NEW PSYCHOLOGY.

The science of experimental psychology, of which the renowned Wundt must always be considered the father, has received a new impulse from the work which Professor Scripture, of the Yale Psychological Laboratory, has lately made public.* Psychology has been such a much-abused term that the nature of the science has become obscured. The word has been used with a looseness which savors of literary profligacy. Some people may mean something when they speak of the psychology of "Dr. Jekyl and Mr. Hyde;" but most people must mean less than if they spoke of the psychology of the "Jungle Book." The psychology of the drama may perhaps mean a soul-history of its characters. The psychology of Browning has stimulated a taste for afternoon tea-drinking among well-dressed women, but in essence must remain vague, nebulous, and uncertain. Carlyle's famous definition of a "deputation," "a noun of multitude meaning many but not much," might with little alteration apply to the lax and inconsistent terms in which psychology is generally understood.

Psychology has hitherto been largely regarded as a branch of metaphysic, and metaphysic has come to be looked upon as little more than a species of intellectual calisthenic. After a thousand years of metaphysic, all that has been achieved thereby are certain limitations on human knowledge, to confront us more closely with the unknowable; a knowledge of final causes has always been a dream of the thinker, an ideal of the philosopher; but, as Bacon said of them in his day, final causes are like sacred virgins, barren, though they may be useful in the service of religion.

Psychology is from henceforth to be a science with definite aims, working from facts to principles. It began with Locke, who substituted introspection for speculation. Introspective psychology has been productive of vagueness. The mind observing the operations of mind has lacked the element of separateness needful for exactness. The information which psychology must give must be impersonal, and this is to be done by substituting experiment for unmethodized observation.

*The New Psychology. Appleton's.

For instance, suppose it be desired to estimate the effect of music upon action. "With the thumb and finger grip the greatest pressure I can exert during silence," says Mr. Scripture, "is four kilos. When some one plays the *Giant's Motiv* from the *Rheingold* my grip shows four and a half kilos. The slumber motif from the *Walküre* reduces the pressure to three and a half kilos." Here are actual facts connecting music with organized life, which are certainly interesting. That one motif is worth one kilo more pressure than another is a new valuation in music.

Take another example: A man is given a pair of handles to grip his hardest and an indicator records the result. He is told to multiply six by four while he is doing this, and the result is a scarcely perceptible diminution. He is told to multiply thirteen by fourteen, and while the process is going on his grip falls from seven to four kilos. The mental exertion of multiplying thirteen by fourteen is therefore equal to three kilos pressure. This is a quantitative result, and as all science more or less consists in transforming qualitative knowledge into quantitative knowledge, this must take rank as a scientific fact.

Facts about memory are among those which constitute the basis of our knowledge of mental action. If we take a number of meaningless syllables, it is found that in an average number of people seven of these syllables can be repeated after learning them once, but fourteen syllables require twenty repetitions. Similar experiments establish the duration of memory. A series of twelve syllables required 16.5 repetitions for the first learning; twenty-four hours later it required eleven repetitions to relearn it; twenty-four hours later it again required only 7.5 repetitions. This may not seem very interesting, but from such facts some day a medical student may know precisely how long it will take him to memorize his anatomy in an unforgetable way.

Psychological laboratories are fortunately becoming common adjuncts to our institutions of learning. It will soon be regarded as the utmost foolishness that our alienists and mind experts shall be unfamiliar with fundamental psychological data, or that they shall not know how the mind normally operates. The day when psychology will be taught in our medical schools, in the same way as we now teach bacteriology, cannot be far distant. That the sunlight of science is to penetrate the mysteries of psychical life will only be lamented by those intellectual acrobats who most love to disport themselves in the moonshine of metaphysic.

EDITORIAL NOTES.

The Modern Arena.

It is doubtful if any gladiatorial show presented any more intrinsically inhuman features than did the recent six days' bicycle race in Madison Square Garden. A large number of men and women, some of whom would squeal with horror at the vivisection of a mouse, for several days watched a number of athletic and healthy young men gradually exhaust themselves to a delirium.

They spurred them on with every incentive until the poor victims sank a prey to the ptomaines of fatigue. Long before the race ended some of the riders could not mount or dismount without help. They became insanely hallucinated. Some believed the people who watched them were placing obstructions in their path. One believed some ladies in a box were being annoyed by ruffians and wanted to go to their rescue. Another had hallucinations of poisoning. One of them, being stopped for a medical examination, had delusions of persecution. It is unnecessary to speak of the physical sufferings of nearly all the riders. With swollen wrists and ankles, and so reduced in strength that they could only stagger, they afforded a sad commentary upon the foolishness of those who could so suffer for the amusement of others, and on the wickedness of those who could grimly take delight in such spectacles. If we are to have an arena, the old one is not less merciful for being a little more cruel.

Wolf-Children.

Those who have closely followed the career of the delightful Mowgli, the hero of Kipling's "Jungle Book," must have wished it might have been true, and that there could have been a "man-cub" who had actually participated in the secrets of animal life. To the current number of Lippincott's Dr. George Archie Stockwell contributes a very interesting article on the subject of Wolf-Children. That there should be any kinship or affinity between wolves and children is somewhat incredible, notwithstanding Romulus and Remus. Dr. Stockwell has, however, collected an amount of evidence that is certainly very astonishing, going to prove that it is not unknown in India for children to be purloined by wolves, and for these children to grow up with animal traits and habits, so that when captured they exhibit the characteristics of jungle life, being as wild and untamable as their lupine friends. This is certainly an unexplored region of pediatrics, and until it is better understood no very positive statements can be made concerning it.

Indican and Bacteria.

It has been noticed that the introduction of large numbers of the common colon bacillus markedly increases the indican and ethereal sulphates in the urine. The introduction of proteus vulgaris increases the ethereal sulphates, while the lactic acid bacillus reduces the indican and ethereal sulphates. The different values of the indican upon the introduction of different bacteria suggest that clinical medicine will shortly be enriched by specific knowledge of the processes which occur in the intestine under the influence of micro-organisms acting upon different foodstuffs. This is another aspect of the many-sided problem of our relations with micro-organic life.

Among the British troops in India the Roentgen rays are being used with great success in locating splinters of lead which would otherwise escape detection, as well as fractures and splinters of bone.

ITEMS AND NOTES.

A SERIOUS epidemic of typhoid fever has befallen Paterson, N. J.

"THE bicycle is the greatest calisthenic of the world," declares Prof. H. C. Wood.

IN this country the tendency to suicide among children is increasing to an alarming extent.

THE Prince of Wales' Jubilee Hospital Fund has amounted to a little short of one million dollars.

PRINCE BISMARCK is at present suffering from some form of dropsy, and has recently had his feet tapped.

AT the Johns Hopkins University there are at present 170 medical students. Some of them are women.

KANGAROOS in captivity are said to suffer greatly from enormous corns. In wet weather they develop symptoms of gout.

THE King of Sweden has given the sum of 2,200,000 kronen to be applied to the building and endorsing of homes for the tuberculous.

A CORRECTION.—On page 764, MEDICAL AGE for December 27, a formula there published called for 72 drachms of Fowler's solution; this should have been 72 minims.

THE Paris Municipal Council has fixed a site for the monument to be erected to the memory of the great chemist Lavoisier in the Rue Tronchet, immediately behind the Madeleine.

THE Ninth International Congress of Hygiene and Demography will be held in Madrid April 10–17. The programme is completed, and the rules for the Congress have been forwarded to participants.

IN SWEDEN small children have a habit, it seems, of drinking a strong alkaline solution that their mothers use in washing clothes. This in many cases is followed by a stricture of the esophagus.

A COMMITTEE has been appointed by the Obstetrical and Gynecological Society of Paris to draw up a proposition to modify the law concerning preliminary imprisonment of medical men in cases of malpractise.

NORWAY with a population of a little over 2,000,000 has three special hospitals for the confinement and treatment of lepers, and in these institutions are domiciled over 1000 unfortunates afflicted with this terrible disease.

FIVE practitioners of medicine signed the Declaration of Independence: Benjamin Rush of Philadelphia, Lyman Hall of Georgia, Oliver Wolcott of Connecticut, Josiah Bartlett and Mathew Thornton of New Hampshire.

Dr. Jose Sanarelli was awarded the Pasteur prize offered by the Circillo Med. Argentino for the best experimental work in the line of immunization against yellow fever. He refused to accept it, as his was the only paper offered.

A little village in Pennsylvania called Friendsville appears to be a very healthy locality and remarkable for the longevity of its inhabitants. The town has a population of 135, of whom twenty-seven have passed the age of ninety.

"Surgery One Hundred Years Ago," a historical study by Dr. Geo. Fisher, which is now running in the *Journal of the American Medical Association*, is one of the most interesting and valuable contributions medical literature has had of late years.

Wolfer advises the use of glass in all septic and aseptic operations, and also for making examinations of the mouth, rectum, and vagina. He employs the ordinary military glove of leather, which he keeps in three-per-cent. carbolized glycerin.

According to the *Lancet* Dr. Alex. Hill has been elected to the honorable position of Vice-Chancellor of Cambridge University. This is the first time in history that the highest executive office of either of the two leading English Universities has fallen to a medical man.

Dr. P. Klemm, of Riga, recommends for the operating table aseptic cushions made of stout linen bags filled with excelsior and sterilized with steam before being used. He has found these cushions convenient, cheap, absolutely aseptic, and far superior to rubber ones.

The Paris Medical Society, after a prolonged discussion of the subject, has come to the conclusion that cycling is excellent exercise for healthy people, is very beneficial for those suffering from nervous disorders, but is undesirable for delicate people who are liable to suffer from overfatigue.

Recently a young woman of Atlanta, Ga., was fined $25.75 for refusing to be vaccinated. As she was unable to pay the amount she was ordered to serve twenty-five days in prison. After spending a few hours in confinement she decided to be vaccinated, and was subsequently released.

The death of Mr. Ernest Hart, the editor of the *British Medical Journal*, will be regarded as a calamity to medical journalism. Mr. Hart occupied a niche in the temple of fame peculiarly his own. He had few equals as an editor. His death will be lamented by his many friends in America.

Twenty-four States in the United States now require examination for license to practise medicine. In thirteen States certain diplomas are considered the equivalent; in six States a diploma only is required; while in Alaska, Arizona, Kansas, Michigan, Nevada and Wyoming the law practically imposes no restrictions.

Immunization and Diphtheria.—A recent letter from Berlin says: "Huebner requires the administration of a prophylactic dose of antitoxin to all children admitted to the Charité. In cases where its use is neglected and in others where the period of immunization has elapsed, the disease is in some cases contracted in the hospital wards."

A skeleton was found in the course of some scientific explorations last winter in Egypt, which has shown, upon examination in London, every osteotic evidence of rheumatoid arthritis, and the case is of striking interest as showing the pathological conditions as far back as 3700 B.C., to which time there is abundant proof that this skeleton belonged.

The *British Medical Journal*, in drawing attention to the very explosive and inflammable nature of celluloid hair-combs, cites the case of a young girl who, while wearing one of these articles, bent over a lighted candle, with the result that, although the comb had not touched the flame, it exploded from the heat, and the girl was badly burned about the face and eyes.

Medical Victims of Yellow Fever.—During the recent epidemic of yellow fever in New Orleans twelve physicians were stricken with the disease, and two of them died. The same number of trained nurses were also attacked, but all recovered. The two physicians who succumbed to the disease were young men who had not lived long in New Orleans and were unacclimated.

Emperor Menelek has appointed a young Swiss woman as court physician. The holder of this novel position is a graduate of the University of Zurich. Although the history of Abyssinia is an ancient one, one hardly realized that it had reached the exact stage of evolution where the woman doctor appears upon the scene. Let us hope she will not feel herself to be an anachronism.

In Turkey the army medical officers have a special training at the expense of the government. Upon passing his examination and receiving his commission an officer pledges himself to serve the government twenty-five years, at the end of which time he may be pensioned. If for any reason other than actual physical disability this obligation is not fulfilled, he is forced to refund to the government the amount expended by the latter upon his education.

According to a report in the daily papers, Col. E. E. Cavaleri, a veteran of the Union army, seventy-four years of age, has sued the city of Atlanta for damages. When the city physicians were recently making their vaccination rounds Colonel Cavaleri's fiancée objected to vaccination, saying she was going to be married. The doctor told her it was better to be vaccinated than to marry. When Cavaleri came next to see her she told him she had decided to follow the doctor's advice, and refused to marry him. Hence the suit for damages.

Improved Crutches.—Many persons temporarily lame do without crutches on account of the expense and trouble of procuring them, which much retards their complete recovery. To remedy this, Dr. O. Thilo, of St. Petersburg,

has invented an adjustable folding crutch which is shortened or lengthened by moving the foot-piece up or down in a metal shell that holds it; the cross-pieces are secured with an iron rod, fastened with a copper nut at each end. The shoulder-rest is a piece of webbing. The foot-piece is made in three lengths, for children, medium-sized and tall persons.

THE late Madam Boucicault, of Paris, has left a large portion of her estate for the erection and maintenance of a hospital for the treatment of persons affected with tuberculosis. The buildings with furniture have cost about $650,000, and a sum of $1,500,000 was left for its maintenance. The new hospital is isolated and situated in that part of the city known as Javel, which is on the south side of the Seine. The wards are glass-roofed galleries, the sides of which may be entirely open. This is for the air treatment, which is a method constantly growing in favor. The flooring is of polished hard wood, the furniture of enameled iron, and there is no drapery or curtain of any kind. The object is to be able to disinfect the entire apartment by means of steam and hot water. The matter of sterilization of all discharges from the patients' mouths and throats is carefully looked after. Incurable patients are to be isolated in smaller rooms away from the wards.

HARPER HOSPITAL, DETROIT.—The annual meeting of the Board of Trustees was held on Monday, January 10. The report of the President was presented, and alluded to the new disinfecting plant which had during the last year been equipped at a cost of $1722.61, and which equaled any now existing in the country. The Polyclinic Building and Diphtheria Building have been refurnished and other improvements made at a cost of $2500. The receipts from all sources amounted to $47,594, and the disbursements to $44,225, showing a surplus of $3368. The number of patients treated was 4510. The report dealt in detail with the various features of the hospital, the school for nurses, the polyclinic, and the contagious disease department; it also indicated that the hospital has been conducted with conspicuous business ability, and the management are to be congratulated upon such an excellent financial statement. The following constitute the Medical Board for the ensuing year: Consulting Surgeons—Theo. A. McGraw, M.D.; E. T. Tappey, M.D. Attending Surgeons—Daniel La Ferté, M.D.; H. O. Walker, M.D.; J. K. Gailey, M.D. Junior Surgeons—Angus McLean, M.D.; Benjamin P. Brodie, M.D.; F. B. Tibbals, M.D.; P. M. Hickey, M.D. Consulting Physicians—Chas. Douglass, M.D.; J. J. Mulheron, M.D. Attending Physicians—Geo. Duffield, M.D.; C. G. Jennings, M.D.; W. R. Chittick, M.D.; F. W. Mann, M.D. Consulting Oculists—L. Connor, M.D.; Geo. E. Frothingham, M.D. Attending Oculists—Geo. E. Frothingham, Jr., M.D.; Don M. Campbell, M.D. Consulting Neurologist—David Inglis, M.D. Attending Neurologists—J. E. Emerson, M.D.; C. W. Hitchcock, M.D. Dermatologist—A. E. Carrier, M.D. Laryngologist—E. L. Shurly, M.D. Consulting Gynecologist—Helen F. Warner, M.D. Attending Gynecologists—H. W. Longyear, M.D.; Harriet A. Gerry, M.D.; W. P. Manton, M.D.; J. H. Carstens, M.D. Microscopist—E. H. Sargent, M.D. Assistant Microscopist—Thaddeus H. Walker, M.D. Pathologist and Curator—E. H. Troy, M.D.

NEW PUBLICATIONS.

LEHMANN'S ATLASES.

It is impossible to speak of these manuals in terms of too high praise. They are the *ne plus ultra* of the clinical handbook.

Volumes XI and XII contain Prof. Dr. O. Bollinger's work on Pathological Anatomy. All the usual lesions found on the post-mortem table by microscopical examination are concisely but comprehensively described in the text and beautifully illustrated by the numerous plates and small text illustrations. The 120 colored plates are reproduced in fifteen colors from original aquarelles by the painter Herr A. Schmitson, and in point of fidelity to Nature and general excellence have never been surpassed in text-book work. All these aquarelles were made from actual specimens obtained at the Pathological Institute in Munich. Accompanying each plate is a brief history of the case from which the illustration is made; so that the work has a decided value to the practitioner for reference and comparison of post-mortem findings, as well as to the student for general text-book information. Pathological rarities and anomalous conditions of infrequent occurrence have been to a great extent avoided, making the matter presented of much practical every-day value.

Volume XIII is a concise and beautifully illustrated compend on the subject of bandaging, by Prof. Dr. Albert Hoffa, of Würzburg. The writer, from a long experience in teaching many hundreds of students the technique of bandaging, is able to present this important subject in such a way that the beginner is able to avoid many of the usual mistakes. The book is systematically arranged, begins with the simplest dressings, and carries the reader by easy stages through all the steps of the more complicated appliances of surgical practise. The hundred copper etchings present the real pith of the subject and require but little explanation in the text. The book is so indexed as to be very convenient for hasty reference.

Volume XV is Dr. Jakob's manual of clinical examination with the elements of clinical diagnosis and the special pathology and therapy of internal diseases. This is the first work to take up the rapidly developing subject of hematology in connection with the other subjects usually handled by works on physical diagnosis. The book opens with a series of plates carefully prepared in colors from the author's own preparations, and beautifully illustrates the more commonly occurring blood conditions. These plates were prepared under the author's personal control and are accurate in form and coloring. Next the author takes up the microscopical appearances to be found in sputum, urine, and stools, together with the numerous color reactions. The second and major portion of the work deals in a thorough and lucid manner with bedside diagnosis from physical signs. The illustrations for the most part in this portion of the book are prepared from actual cases, which give them an interest and clearness not attained by the usual diagrams. The text throughout is concise and so arranged as to be easily accessible for reference.

Lehmann's Medecin Handatlanten, Band xi and xii; Atlas und Grundriss der pathologischen anatomie, Dr. O. Bollinger, Band xiii; Atlas und Grundriss der Verbandlehre, Dr. Albert Hoffa, Band xv; Atlas der Klinischen Untersuchungs methoden nebst Grundriss der Klinischen Diagnostik, Dr. Christfried Jakob. Verlag von J. F. Lehmann, München; Lemcke & Buechner, New York.

MALARIAL FEVERS.

The excellent work being accomplished by Johns Hopkins University and its associates is shown by these lectures on malarial fevers by Dr. Thayer. They contain a full and free presentation of our present knowledge of these diseases. They develop the medical principles involved in Laveran's discovery, and enumerate the results proceeding from the consideration of malaria as a parasitic disease.

A considerable portion of the present work deals with the hematocytocic element in malarial disease. The author's work is marked by close reasoning and acute observation. The clinical descriptions of the malarial fevers are excellent, and amply illustrated by charts of the different thermometric characteristics. The departments of diagnosis and treatment are treated in a manner to make the work useful to the general practitioner.

The work is scholarly in conception and interesting in style, and will be greeted with satisfaction by the medical reader.

Lectures on the Malarial Fevers. By William Sidney Thayer, M.D., Associate Professor of Medicine in the Johns Hopkins University. New York: D. Appleton & Co.

CUTANEOUS MEDICINE.

After reviewing the various classifications from early writers to those of the present time the author presents his own classification with the reason for its adoption, which in the present state of knowledge concerning dermatology is clear and comprehensive. As suggested on the title-page, the author then considers the Special Diseases, beginning with anemias; continuing with the hyperemias, which comprise principally the erythemas and are purely hyperemic in character; and then treating in part of the large and important class of Inflammations.

As usual, Professor Duhring's work will recommend itself to the student on account of the clearness of its style, its good print, and the distinct manner in which the diseases are portrayed and illustrated by a large number of excellent photographs, from cases in his own and others' practise with which the book abounds, and which are so necessary to the proper presentation of the subject. To the general practitioner the work will commend itself from the eminently practical manner in which it is written. To the dermatologist the work must appeal by reason of the exhaustive references to current literature, and to the pathological anatomy, so well illustrated and described by T. Caspar Gilchrist and A. R. Robinson.

The two parts published gives assurance of the unquestionable value of the whole when completed. A. P. B.

Cutaneous Medicine. A Systematic Treatise on the Diseases of the Skin. By Louis A. Duhring, M.D. Part II: Classification — Anemias — Hyperemias — Inflammations. Illustrated. Philadelphia and London: J. B. Lippincott, 1898.

RELIGION AND LUST.

This is a collection of essays bearing upon certain psychical problems. The author's views on the origin of religious feeling and the correlation of religious emotion and sexual desire are very interesting, and marked by diversified thought and reading. The essays on various phases of degeneration are of a singularly interesting and thoughtful kind. It is a little difficult to decipher the author's exact opinions on the decadence, which is perhaps due to an unwillingness to recognize the signs and symptoms of a degeneration of universal or even national significance.

The Psychical Correlation of Religious Emotions and Sexual Desire. By James Weir, Jr., M.D. Second Edition.

STATE STATISTICS.

The title sufficiently indicates the character of this work. A notable feature is the report of the Pharmaceutical Examining Board and list of licentiates.

Twelfth Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania. Volumes I and II. Cloth; 8vo; pp. 547 and 647 respectively. Harrisburgh: Clarence M. Bush.

THE PHYSICIAN'S VISITING LIST.

The forty-seventh annual appearance of Blakiston's Visiting List is in itself an assurance that as a popular and useful *vade mecum* of the physician this little book has passed beyond all necessity of commendation. It is a model of what such things should be.

The Physician's Visiting List for 1898. Philadelphia: P. Blakiston & Co.

LITERARY NOTES.

Among the works which Mr. W. B. Saunders has in preparation for early publication are the following: An American Text-book of Diseases of the Eye, Ear, Nose, and Throat, edited by G. E. de Schweinitz, M.D., and B. Alexander Randall, M.D.; An American Text-book of Pathology, edited by John Guitéras, M.D., and David Riesman, M.D.; An American Text-book of Legal Medicine and Toxicology, edited by Frederick Peterson, M.D., and Walter S. Haines, M.D.; A Manual of Pathology, by Alfred Stengel, M.D.; Nervous and Mental Diseases, by Archibald Church, M.D., and Frederick Peterson, M.D.; A Text-book of Embryology, by John C. Heisler, M.D.; Diseases of the Nose and Throat, by D. Braden Kyle, M.D.; A Text-book of Obstetrics, by Barton Cooke Hirst, M.D.; and An American Text-book of Nursing, by American Teachers. A translation of Lehmann's Atlas Series is also promised.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Treatment of Cancerous Stricture of the Esophagus, Pylorus, and Rectum.

Czerny, of Heidelberg (International Congress at Moscow), limited his paper to the methods of operative treatment in the above conditions practised by himself:

1. In carcinoma of the esophagus, excision of the growth has been carried out in ten cases: only three of the patients survived the operation (thirteen, eleven, and eight months); no radical cure has as yet been reported. Palliative gastrostomy has yielded better results: the method employed at Heidelberg is Marwedel's modification of Witzel's operation; this was carried out in fourteen cases, of which three died during the first month: in the others, life was prolonged for as much as eleven months: in many cases, however, the increased duration of life only prolonged the sufferings of the patient.

2. In carcinoma of the pylorus, the radical operation or resection of the pylorus was carried out in twenty-two cases, of which two appear to be permanently cured (three and a half and six and a half years). The mortality from the operation is still high—40.9 per cent. Radical cures by other surgeons are reported at eight and a half years (Ratimof), seven and a half years (Kocher), and five years (Wölfler). Early diagnosis and the selection of only the most favorable cases are the necessary conditions for successful operation. The palliative operation, gastro-enterotomy, has been carried out by Czerny in 100 cases: in sixty-nine of these the anastomosis was made for cancerous obstruction at the pylorus, with a mortality of twenty-nine per cent.; the last series of ten cases was completed without a single death. In making the anastomosis Czerny strongly recommends the Murphy button, and the method of operating known as v. Hacker's, whenever it is available. The average duration of life after gastro-enterotomy is estimated by Czerny at 8.8 months, and during this time the patients are relatively free from suffering. Lastly, in a series of twenty cases the abdomen was merely opened for exploration: the average duration of life in these was 3.5 months.

3. In cancer of the rectum, Czerny has operated in 149 cases with a mortality of eight per cent.: by the method of Kraske in sixty-six cases, with nine deaths; and by the perineal route in eighty-three cases, with three deaths. In twenty-five per cent. of his cases he has obtained permanent recovery and freedom from recurrence.

Czerny does not approve of a preliminary colotomy in cases in which the rectum is to be excised, because it necessitates the patient submitting to at least two, and it may be three, operations. As a palliative in advanced cases, he has had recourse to colotomy more and more within the last few years.

Kader, of Breslau, at the same Congress, reported the operations on the stomach which have been carried out in Mikulicz's clinic. Between the years 1882 and 1897 the number of these amounts to 272, with a total mortality of 26.7 per cent. Resection of the pylorus was performed for innocent stricture in two cases, without a death; and for malignant stricture in twenty-five cases, with eight deaths; pyloroplasty in seven cases, with three deaths; gastro-enterotomy in twenty-two cases, with six deaths; gastrostomy in thirty-seven cases, with nine deaths.

Intestinal Obstruction.

In an introductory address on "Operation in Intestinal Obstruction," delivered by Sir Wm. Thomson, President of the Royal College of Surgeons, Ireland, before the Surgical Section of the Royal Academy of Medicine of Ireland at its recent meeting, the speaker said the initial difficulty which we encounter is that there are so many conditions threatening life which present symptoms of an almost identical character. We are accustomed to take three of these as very typical—pain, vomiting, and constipation—and as practically constituting a guiding trio

These, however, cannot be relied upon solely, but other elements must be sought to aid us: The age of the patient, an antecedent history, the condition of the abdomen, the amount of distention, whether the constipation has been chronic or has been gradually increasing, the character of the urine, the quality of the feces, the temperature—which is not very reliable—and the actual constitutional state of the patient as indicating collapse or shock.

In the consideration of the symptoms vomiting comes first, being by far the most important. The character of the excreta must be carefully considered to determine whether or not it be stercoraceous.

A good working rule which has been laid down by Mr. Greig Smith is that if vomiting has occurred three times no time should be lost in operating. Of course there is no special value in the number; it only gives a reasonable time to make the character of the symptom clear.

Pain is of value in locating the trouble within the abdomen, but it rarely indicates the actual site of the obstruction. In chronic obstruction it is never severe and differs from the acute affection, which is quite intense and comes on suddenly.

The temperature is too misleading to place any reliance on whatever, nor can we depend very much upon constipation. To these we must add the general condition of the patient, the character of the facial expression, and the collapse which in some form is always present and is ever progressive.

The greatest value must, however, be placed upon the stercoraceous vomiting, but we should not fail to avail ourselves of every possible corroborative element.

Time spent in medical treatment is only time lost. When the character of the case is certain there is only one thing to be done, and that is to explore. It is not the opening of the abdomen that kills; it is the fact that that is usually done when by delay everything is arrayed against success.

Bone Grafting.

At a recent meeting of the Academy of Medicine M. Dubar, of Lille, read a paper upon the case of a little girl, aged ten years, in whom he had performed resection of the wrist for tuberculous disease. With the intention of giving some firmness to the resulting joint M. Dubar, after having removed the diseased bone, filled up the gap with fragments of bone taken from the femora of an eight days' old puppy. The wound was simply dressed and drained, and the patient made an uneventful recovery and has good use of her hand. Her wrist is firm, painless, and movable. In order to see what had become of the transplanted fragments an *x*-ray photograph of the wrist was taken, when it was seen that some of them were lying in the midst of newly formed fibrous tissue and others had grown into the remnants of the carpal bones, while they had all slightly increased in volume.

MEDICINE.

The Question of the Identity of Yaws and Syphilis.

In 1891, in a preface to Mr. Numa Rat's essay on Yaws, Mr. Jonathan Hutchinson expressed his well known opinion that the disease was simply syphilis, though modified by race and climate. In the *Lancet* of February 13, 1897, we gave a brief summary of his reasons. Though he has enforced this view repeatedly with his usual dialectic skill and command of facts, it does not appear to be accepted by any one who has observed the disease in life. Mr. Hutchinson has of necessity had to take his facts from descriptions and portraits. In the *Indian Medical Gazette* for October Dr. A. Powell presents forcibly the case against Mr. Hutchinson's views. His statements are based on an outbreak of yaws which occurred in Assam. They appear to be the result of careful observation, but exemplify the confusion which still exists on the subject. For while the colonial surgeons unite in the conclusion that yaws is not syphilis, they contradict one another on fundamental facts. Thus Dr. Powell denies that a primary ulcer ever occurs as stated by Mr. Rat. In the majority of cases a papule first forms which develops into a granuloma, exactly similar to those of the general eruption. Again, he has never seen the tertiary lesions alleged by Mr. Rat, though almost all his cases have remained under observation since 1890. In reply to Mr. Hutchinson's query, "Are there many cases in which it is impossible to decide whether the symptoms are due to syphilis or yaws?" he states that he has never seen such, and that there is no disease—not even smallpox—more definite than yaws. In the secondary stage of yaws in 130 cases he never found the throat affected. But his most powerful argument is the coexistence of yaws and syphilis in the same patient. He observed in two cases of well marked yaws typical attacks of syphilis—indurated chancres, buboes, symmetrical ulcers of the tonsils, and a macular and roseolar rash. In both the syphilis yielded to mercury whilst the yaws persisted. There are but few cases of this kind recorded. Mr. Hutchinson has admitted that these cases have caused him to suspend his judgment. But

as they are so few he asks for corroboration. On the other hand, beyond explaining its infrequency in Europeans from their different habits, Dr. Powell makes no attempt to deal with one of Mr. Hutchinson's most powerful arguments that yaws can be nothing else than syphilis. How is it that such a very contagious malady, of prolonged duration, to which white as well as colored races are liable, never comes to Europe? On the whole we consider that the weight of evidence is against Mr. Hutchinson's view. But he seems to have established that the diseases are very closely analogous and that yaws may be exactly simulated by a rare form of the secondary eruption of syphilis—the frambœsial; also the modified view which he has suggested, that yaws may be the parent stock from which European syphilis has sprung, but that the two, by long transmission in different races, have become modified, deserves attention. But proof or disproof of this seems to be impossible.—*Lancet.*

Hystero-Gastric Inflation.

Before the Medical Club of Vienna Herz recently exhibited a young woman, aged nineteen, who had been admitted to hospital complaining of her breathing and palpitation, for which she had already been confined to bed for six weeks. In the spring, it appears, she was suddenly attacked with a peculiar dyspnea affecting the stomach. It was observed that, with every inspiration, the stomach filled also, this disappearing with expiration in the same manner. These attacks repeated themselves several times, and then ceased for a period. After this the body weight rapidly fell from 52 kilogrammes = 8.171 stones, to 38 kilogrammes = 5.971 stones. By close supervision and careful inspection of the abdomen, it was positively proved that the stomach became vaulted with every inspiration, and fell with the expiration, at which instant it fell with a splash and emission of air by the mouth. There is no doubt that the stomach was blown up at each inspiration, while the chemical and motor conditions of the organ were normal. No other morbid changes could be discovered, and certainly there was no stenosis of the pylorus. The only conclusion arrived at was hysteria.

Oser said he had frequently met with such cases in which he considered the peristalsis was at fault; this was often induced in such cases by a misapplication of drastic medicine. Another fruitful cause is owing to the bowel being empty of food but full of air, with an irritable innervation of the stomach, which is constricted and relaxed at every respiration, thus admitting of a pumping movement to be carried on between the bowel and stomach. He related a case of this kind diagnosed as carcinoma of the bowel with stenosis of the pylorus. The symptoms justified the diagnosis, but, strange to say, it speedily recovered after the neurosis was cured, with no further signs of either carcinoma or stenosis.

Singer said he had a case of this kind which resembled cramp of the pylorus, where no organic thickening could be discovered. Yet the stenosis persisted.

Reichel thought there was more complexity in the symptoms than had yet been explained, and considered the abdominal muscles to be instrumental in the production of many of the phenomena.—*Medical Times.*

PATHOLOGY AND BACTERIOLOGY.

Acquired Immunity.

Gottstein (*Edinburgh Medical Journal*) challenges the commonly received view as to the immunity acquired by human beings to second attacks of acute specifics. He considers it unjustifiable to conclude that because a man does not have an infectious disease twice he has become immune to it through the first attack; he considers this to be a result of the doctrine of chance, and points out that although the winning of the first prize in a lottery twice by the same person is practically unheard of, no one would think of claiming this as a case of immunity. The author dismisses the prophylactic action of vaccination on the ground that this is not strictly comparable with variolous inoculation, and states that Voges has shown that fowl cholera can lay claim to no specific immunizing power, as the same immunity as that conferred by injection of attenuated cultures can be obtained by the aid of serum from healthy animals, and hence that the experimentally established immunity of Pasteur is simply a heightened power of resistance. Human acquired immunity should, according to him, be investigated without reference to experiments on animals. Gottstein proceeds to inquire as to which acute specifics are definitely held to confer immunity, and by collecting the opinions of various authors finds that smallpox, measles, and scarlet fever are alone universally stated to do so. As regards the first two, cases are not uncommon in which the same patient suffers from the disease twice or even more often, and the rarity of this is only in accordance with the law of probabilities. Three factors combine to add to this infrequency. First, many diseases, such as diphtheria, are particularly associated with the early years of life, so that when a patient is exposed to a second infection he has very often passed the age of especial liability. Other affections again, such as cholera, typhus and recurrent fever, occur typically in short, infrequent epidemics, so that the subject has but little chance of meeting with them again. Lastly, and this is most important, deadly diseases such as cholera, diphtheria, and plague spare only those who are most resistant, in whom the probability of a recurrence sinks very low.

The author then gives a number of examples of the repeated occurrence of infectious diseases in the same individual, and enters into elaborate statistics to show that the frequency of such repeated infections is actually in excess of what might be deduced from the calculation of probabilities. Thus he quotes from Maiselis statistics of thirty-three second attacks of scarlet fever, thirty-seven of measles, and no fewer than 514 of smallpox, and refers also to the recurrence of syphilis and of whooping-cough. He next attacks the current views as to serum immunity, referring to the experiments which have been made to show that the serum of new-born babies and adults who have never suffered from diphtheria exercises a protective influence in guinea-pigs against diphtheria toxin. He further points out that, according to Weismann's theory, acquired immunity cannot be transmitted, and hence will not explain family and racial non-susceptibility to disease. This is really a heightened power of resisting resulting from the elimination of the weak in the struggle for existence. He finally suggests that in many of the exanthemata the true cause of

immunity may be hardening of the skin, following the rash and preventing cutaneous infection. He illustrates this by the case of vanilla workers, who, after once recovering from the eczema induced by their trade, are no longer liable to it.

THERAPEUTICS.

Peronin.

Stampfl at a meeting of the Vienna Medical Club made some remarks on peronin, which he said was a substitute for morphine, and was admirably suited for all larynx and lung affections where the cough was troublesome. Reflex vomiting after attacks of coughing and pain were quite relieved, with a reduction in the expectoration.

In neuralgia, when not too severe, peronin was of great service.

It was also beneficial in chronic bronchitis and congesting catarrhs.

It produced a sort of itching on the skin from diaphoresis, although the latter is not constant.

On the latter account it is contraindicated in phthisis internally or as insufflations for throat affections. The dose is two to three times the quantity of morphine.

In the discussion Stampfl was asked what effect the drug had on the heart. He could not give any guarantee beyond his own experience and Schrötter's clinic, where no untoward cases of this kind were observed. He had also used it freely among children without observing any bad effects. Another property of the drug was its freedom from causing any constipation.

The dose was 0.02 gramme and should not exceed 0.06 gramme. The daily amount varies between 0.15 gramme and 0.2 gramme.

Periplocin.

Lehmann and Burschinsky some time since isolated a crystalline principle from *Periploca græca* which proves to be a powerful heart poison. It resembles in this respect digitalin, strophanthin, and ouabin. The principle is a glucoside, melting at 205°, readily soluble in alcohol, sparingly in ether, and more freely so in cold water than in hot.—*Apotheker Zeitung.*

NEUROLOGY.

Unknown Phenomena of Intoxication.

The October number of the *Alienist and Neurologist* contains an editorial in which the writer discusses an article entitled "Some Unknown Phenomena in Intoxication," by Dr. T. D. Crothers, recently published in the *Journal of Inebriety.* He takes exceptions to certain statements made by Dr. Crothers—for instance: "Acute alcoholic intoxication is *always* marked by general palsy of the senses and reasoning. This is generally true in the neuropathic, but

some of the world's best work in every walk of life, even in poetry and in the pulpit, has been executed under acute alcoholic poisoning."

In vino veritas is nearer the psychological and psychiatric rule. Liquor brings out the true latent nature of the man, normal or morbid; in the neuropathic it brings into marked activity latent psychiatric tendencies and reveals neurotic perversions. Alcohol, says the writer, is a good test of inherent neural stability; the inherent neurotically unstable succumb soon to its influence and act unnaturally, while in moderate quantities short of overwhelming coma-inducing toxicity, it exalts intellectual function in the normally endowed in the earlier stages of its influence.

Daniel Webster, drunk, continues the writer, but volitionally urged to the effort, threw off the incubus of alcohol and astonished listening thousands, who were swayed by the eloquence of an alcoholized but neurally normal brain; the alcoholic impulsion upon the healthy neurons of those well endowed with intellectual centers acted as the whip and spur of action. It is only when the integrity of the neuron is impaired, either by hereditarily transmitted or neuropathically acquired conditions, that the symptomatic expressions described by Dr. Crothers may be seen.

Not all persons under the influence of alcohol are either insane or fools. Within certain limits alcohol is a test of neural stability and a proof of neuropathic instability.

Mirror Speech.

In an article on "The Speaking and Singing Voice" Dr. F. Ardenne reports a case observed by M. Doyen, of a girl twelve years old who had been trephined for a mastoiditis, and who, after the operation, uttered certain words inverting the first and last syllables unconsciously; for example, for "Ma Tante" she would say "Te-tan-ma." This the author calls mirror speech, as analogous to mirror writing, in which those accustomed to the awkward habit write very easily with the left hand.—*Revue Hebdomadaire de Laryngologie.*

GYNECOLOGY.

Toxic Materials Absorbed from the Bowel as a Cause of Version of the Uterus.

In the upright position of the body under ordinary circumstances the axis of the uterus corresponds with that of the inlet of the pelvis: the fundus or upper pole is directed upwards and forwards, whilst the cervix or lower pole is directed downwards and backwards. This relationship of the poles to the pelvis and to each other should be maintained in spite even of those alterations in the line of action of gravitation which result when the individual assumes a more or less recumbent attitude. Except when the neighboring pelvic organs —the bladder and sigmoid—are unduly distended, no portion of the peritoneum covering the uterus should rest in contact with the serous lining of the pelvis.

During the process of evolution the body of the uterus is thrust upwards from the pelvic floor into a medium which affords it no appreciable support, but the organ is so peculiarly related to its peritoneal covering and the pelvic diagram—the broad ligaments included—that it is enabled to maintain its rigid and strained position.

Between the muscular tissue of the uterus and the serous covering of this organ there exists a mutual tension. The peritoneal covering is, in fact, too small for the organ, and in virtue of the elastic pressure exerted by this membrane the underlying muscular tissue is perpetually more or less restrained and compressed. Deprived of its peritoneal coat, the uterus, as a whole, would become extended and more bulky. Under ordinary circumstances the muscular tissue reacts upon the membrane enveloping it, and keeps it passively extended, and as long as these reciprocal tensions are preserved, the uterus will maintain its erect position. In discussing the relationship of the uterus to its peritoneal covering, we cannot, however, ignore the existence of the broad ligaments and their structures included therein, for taken as a whole this septum of the pelvis may be likened to a leaf, and the uterus itself may be regarded as its mid-rib. In maintaining its erect position this mid-rib is aided very materially by the meso-hysteron tension, and it is evident that if this tension should from any cause become decidedly impaired, the mid-rib would assume a more or less recumbent position. With its natural connections the uterus is an elastic and rigid body, but severed from its broad ligaments it becomes a flexible structure.

The cervix uteri as it passes through the vaginal vault is incorporated with the tissues which it invades; but the force of cohesion here is feeble, consequently the cervical or shorter arm of the lever is caused to move in the direction opposite to that of the longer and more weighty corporeal arm when this is no longer able to resist the influence of gravitation.

In the condition of version of the uterus, the poles of the organ continue practically equidistant from each other, but they are correlatively deviated from the recognized normal situation, so that the axis of the uterus crosses that of the inlet of the pelvis. The displacement is designated anteversion, retroversion, right lateral version, or left lateral version, according as the fundus is directed more towards the anterior, the posterior, the right or the left wall of the pelvis. It varies greatly in amount, and we may observe every degree of deviation from that in which—at the seat of reflection of the peritoneum, where it passes from the uterus to the pelvic floor—there is a very limited and but slight contact of the serous surfaces to that in which the body of the uterus lies more or less passively on the upper surface of the pelvic diaphragm.

In association with pregnancy, and after parturition, great molecular variations take place in the tissues of the uterus, and these changes are effected largely by the agency of water. In the unimpregnated state water is also a very important constituent of the uterine tissues, and its presence in due amount is necessary for the maintenance of those mutual tissue-tensions to which I have already referred. The tension exerted by the muscular tissue of the uterus in opposition to that maintained by the elasticity of the peritoneal

covering of the organ is, in fact, mainly due to the water locked up in its meshes. The uterus, when removed from the body, rapidly becomes soft and flaccid, and this change is attributable to the loss of water by evaporation. In its vital state the water locked up in the meshes of the muscular tissue of this organ may become deficient in amount, and version may result in consequence of the harmonious relationship of the mutual tensions being thereby seriously disturbed.

My investigations have not yet proceeded far enough to enable me to state how the tissue may fail to abstract that amount of water from the blood which is necessary for its well-being, or, having abstracted it, why it should fail to retain it; but I am confident that toxic materials absorbed from the intestine, whether directly or indirectly, may so alter the muscular tissue of the uterus as to bring about these untoward events.

Sulphuretted hydrogen is occasionally produced in the bowel. It is a powerful protoplasmic poison, and by permeating the uterine tissues it may inhibit their actions. Plants exposed slightly and for a short time to the influence of this gas become more or less limp and tend to droop. A toxic material having an action like curare is commonly found in the gut, and this poison, when absorbed, may so affect the muscular tissue of the uterus as to cause it to lose its power of resisting filtration—a power which is so essential for the maintenance of turgescence.—Dr. James Oliver, in *Medical Press and Circular.*

Tubal Gestation.

In an address entitled "Tubal Gestation, with Special Reference to its Early Diagnosis and Treatment," delivered before the Oxford Medical Society by Chas. J. Cullingworth, M.D., F.R.C.P., the speaker said that until a very few years ago, ectopic gestation was considered to be a very rare condition, almost a curiosity. It is now known that the condition is one of frequent occurrence. Its recognition, therefore, has become a matter, not of merely academic interest, but of great, and indeed vital, importance. The impregnated ovum may be detained in any part of the Fallopian tube. The most usual position of a tubal gestation sac is the outer half of the tube, but occasionally it is found in the inner straight portion or isthmus.

It is now generally held that Mr. Lawson Tait was right when he declared that every case of ectopic gestation was primarily tubal. With regard to the causes of tubal pregnancy we are yet completely in the dark. It has been stated by high authority, and the statement has been so frequently repeated that it has almost come to be accepted as a well ascertained fact, that this condition only occurs when there has been desquamative inflammation of the mucous lining of the tube. Observation, however, has shown this theory to be untenable.

The gestation sac is found most frequently in the widest portion of the tube—namely, the ampulla. The fact is, we do not as yet know with certainty where the impregnation of the ovum *normally* occurs—where the spermatozoon and the ovum *normally* meet. When the Fallopian tube becomes pregnant,

there is at once excited great vascular activity in that part of the tube where the ovum has become engrafted.

In 1889 the attention of the profession was called to the occasional occurrence, in the course of tubal pregnancy, of a condition of the ovum closely akin to that often met with in the ordinary intra-uterine pregnancy, and known as the fleshy or carneous mole.

It is commonly taught that pelvic hematocele is usually due to rupture of a tubal gestation. This in the speaker's experience is erroneous.

The irregular hemorrhages which are of great value in diagnosis are due to two causes: first, the irritation of the presence of a tubal mole in a part of the tube that has been entirely cut off from its communication with the uterus; second, the efforts of the uterus to dislodge and expel. There is a peculiarity about these hemorrhages that, as far as the speaker knows, has hitherto received no attention. The blood is almost invariably dark in color, moderate in amount, thickish in consistence, and steady in its rate of flow. The condition above all others for which early ectopic gestation with tubal mole is likely to be mistaken is a threatened or incomplete uterine abortion. The two important points in distinguishing the one condition from the other are: (1) the presence or otherwise of an abnormal swelling in the situation of one of the Fallopian tubes; (2) the character of the blood discharged *per vaginam.*

When the gestation has proceeded to a later stage, the presence of some of the ordinary signs of early pregnancy will usually come to our aid—missed menstruation, morning sickness, and breast symptoms.

The diagnosis of tubal pregnancy with hemorrhage so profuse that the blood becomes at once diffused into the peritoneal cavity is based chiefly on the history and on the alarming character of the symptoms. It is in such cases that the pallor is extreme, the pain intense, the tenderness excruciating, and the collapse sudden and severe.

The speaker has no hesitation in proclaiming his strong conviction that, with the exception of some few cases of very early tubal abortion accompanied with hematocele, the proper treatment is to operate at once in every case in which the diagnosis of ectopic gestation has been established.

Complete Abdominal Hysterectomy.

The July number of the *Annales de Gynécologie et d'Obstétrique*, Paris, is almost entirely taken up with the consideration of the technique of this operation. It contains original articles, with diagrams by Hartmann, Diriart, and Richelot, as well as a translation of the article by Dr. Noble which appeared in the May number of the *British Gynæcological Journal*, London, on the subject of hysterectomy in the United States. Hartmann drains by the abdominal wound when necessary, using habitually an iodoform gauze drain *per vaginam*, left *in situ* for six days. Diriart begins by opening the posterior and anterior fornices *per vaginam*, but does not waste time in doing this completely, if it cannot be done quickly. He uses the thermo-cautery to disinfect the cut ends of the tubes, in case they may be septic. With large fibroids he slices freely into the anterior surface, to reduce the bulk. He ties the broad ligaments

usually with an elastic ligature, the ends of which are subsequently passed into the vagina, and fall off from the twentieth to the fortieth day. Richelot does the operation for suppuration of the adnexa. He does not drain *per vaginam*, as routine practise, but when drainage is required he uses a rubber tube as well as the iodoform gauze packing. Noble's article is too long to abstract. He strongly advocates early operation for fibroids, even when they do not endanger life; for thus it is possible to remove the tumor, leaving the uterus fit for subsequent pregnancy. We trust this treatment of early removal of every myoma may not become general in this country.—*Edinburgh Medical Journal.*

THERAPEUTIC NOTES.

For obstinate hiccough an infusion of capsicum is often serviceable.

La Semaine Médicale says that seasickness has been prevented by suggestion.

Formalin 1:500 as a daily urethral douche has proven valuable in the treatment of deep posterior urethritis.

In eczema intertrigo or eczema of chafing a solution of nitrate of silver, three to forty grains to the ounce, is almost a specific.

An important feature in the treatment of chlorosis is to persist in the use of iron for at least three months, and if necessary to resume it in smaller doses, as recurrences are so common.

In an article on "The Baby's Bath" *Annals of Hygiene* says: "A way to determine if a soap will irritate baby's skin is to touch it upon the tongue. If the tongue smarts, do not use it."

In the treatment of leucemia fresh air, good diet and abstention from mental worry and care are the important general indications. Arsenic and bone-marrow are important adjuvants.

Asparagus causes asthma, according to Dr. Deschamps, of Paris, and must be added to the list that contains roses, musk, tea, ipecacuanha, cats, fried fish, oats, malt and rice dust, feathers and wool.

The oil of sassafras will destroy all varieties of pediculi and their ova with a single application (*Medical Brief*). Care must be taken to prevent its coming in contact with mucous membranes. Any burning from this cause can be allayed in a few minutes by pouring on olive oil.

Trendenthal has been successful in aborting influenza with ten centigrammes of calomel twice a day (men), and five centigrammes three times a day (women), administered on the first or second day of the attack of epidemics of grip. The temperature falls in six to eight hours, the neuralgic pain subsides, and the cure is complete in forty-eight hours, or in a week when the treatment was not commenced until the third day. He combines antipyrin or phenacetine with it if there is much pain, wet packs to the thorax if the fever does not subside, and sodium iodide if there are respiratory complications.

THE MEDICAL AGE

VOL. XVI. DETROIT, FEBRUARY 10, 1898. No. 3.

ORIGINAL CONTRIBUTIONS.

PERSONAL REMINISCENCES OF SYME.

BY HIS FORMER PUPIL, DONALD MACLEAN, M.D., LL.D.,

Ex-President American Medical Association.

(*Continued from page 38.*)

My first professional fee came in the following manner: During the Christmas holidays one day the Professor said, "Mr. Maclean, what are you going to do this afternoon?" Of course it was quite evident that there was something special in his head, and I promptly replied, "Nothing in particular." Then he said, "Well, I promised to be at New Haven (a suburb of Edinburgh) at three o'clock this afternoon to meet Dr. Finlay in consultation. Now I cannot very well go, but if you will take my place you will first of all see an interesting case of disease of the hip-joint in a young boy; in the second place you will see his mother, a charming woman; and in the third place, you will get a very good fee." I need hardly say that the appointment was duly kept. What was required for the patient was carefully done. I made the pleasant acquaintance of his mother and the no less agreeable acquaintance of the venerable doctor in charge; moreover, I got the fee, with a part of which I purchased the picture, a reproduction of which appears on the first page of this paper. But over and above all that, the expression of confidence and kindly feeling implied in this action of the great surgeon acted as a genuine stimulus to my ambition, the effect of which was long-lived.

A patient in the Royal Infirmary, for whom it was my duty to perform minor surgical services, presented me one New Year's day with a fine specimen of a Skye terrier pup as an expression of gratitude. Professor Syme happened to come suddenly and unexpectedly upon me one day while sitting on the door-step of the Royal Infirmary after business hours, along with one or two of the old nurses, playing with my pup. In a good-natured, pleasant manner he said, "Mr. Maclean, is that your dog?" I had no choice but to plead guilty. He at once assumed an air of mock severity and looking straight at me said, "Then permit me to inform you that there are just three steps to ruin for a young man: first, a *dog;* second, a *pipe;* and third, a *woman.*" The experiences of my life from that day to this have, I must say,

failed to fully justify the Professor's oracular utterance. I have rarely seen the day that I have not been the happy possessor of one or more dogs, and surely have had no occasion to blame them for any misfortunes which may have befallen me. As for the pipe, I have never availed myself of its comforting and insidious influences; and so far as the third, and last, "step" is concerned, I have only to declare, as a matter of actual truth and simple justice, that from my cradle to the present time women have ever been my greatest comfort, blessing and inspiration, in spite of an occasional attack of heartache which, after all, proved to be quite evanescent.

Time and space would fail me to set down in detail the many occasions when striking episodes occurred in the matter of operative experiences in which I was an eye-witness and more or less of an active participant with Professor Syme. The subject is a fascinating and inspiring one and tends to awaken in my mind memories of the most precious nature. I will only venture to quote a single example here. One winter afternoon Professor Syme asked me to accompany him, along with a former house surgeon of the Royal Infirmary, Dr. Gourlay, to the ancient town of Kirkcaldy. The operation was the removal of a tumor situated deeply beneath the articulation of the lower jaw. It was not a small tumor, and it was not well defined, and of course was closely related to structures of critical importance. Before the operation had proceeded very far, or, in other words, "in the middle of it," with very slight premonition a terrific thunderstorm broke over the scene and the light of the sun became almost totally eclipsed. The room in which we were situated was a small and poorly lighted one, and the darkness became exceedingly embarrassing. In the midst of this Egyptian darkness the internal maxillary artery was wounded; the hemorrhage from the deep and irregular cavity was rapid, and taking all the circumstances into consideration the occasion was one well calculated to induce embarrassment and anxiety on the part of all present, especially the operator. The calm, deliberate and efficient action of the Professor in this emergency could hardly be done full justice to by any words at my disposal. I can only declare that in the many urgent emergencies which have occurred in my own experience as an operator during the many years that have elapsed from that day to this, the stimulating and tonic effect of the recollections indelibly impressed upon my mind on that occasion have induced the most sincere feelings of gratitude and admiration. Professor Syme was upwards of sixty-four years old at the time this operation was performed.

The present Lord Lister became, when still a young and comparatively unknown surgeon, the son-in-law of Professor Syme. All the medical students of Edinburgh of my time will remember Mr. Joseph Lister as an active and enthusiastic teacher and student of surgery. The manner in which he has fulfilled the most sanguine and enthusiastic predictions as to his future is now a matter of universal knowledge. His father-in-law was one of the most confident and enthusiastic prophets of his future greatness. Not long after Mr. Lister had been elected to the Chair of Surgery in the University of Glasgow, the following episode occurred, which is very pleasantly impressed upon the writer's memory:

Among the many marvelously interesting and striking cases of aneurism which fell to Professor Syme's lot during the time of my association with him—cases which may be safely regarded as constituting the crowning glory of his great career as an operating surgeon—was the following: A shipwrecked sailor, making a desperate leap for his life, had the misfortune to rupture the common iliac artery in the neighborhood of its bifurcation, giving rise to an enormous pulsating tumor. Emboldened by his recent brilliant successes in the treatment of aneurism, Professor Syme, after careful consideration, decided to make a desperate effort to save, by operation, the life of this unfortunate man. When the time for the operation was near at hand he wrote to Professor Lister informing him of his proposed bold and critical undertaking and inviting him to be present, and as the sailors say, "to stand by." Professor Lister arrived in Edinburgh the day before the operation and brought with him an instrument which, as a result of his reflections about the case, he had been led to invent—an instrument now familiarly known as Lister's aortic compressor. The writer enjoyed the privilege of being present when Professor Lister presented to his distinguished father-in-law the instrument in question. Professor Syme looked at the instrument and, notwithstanding his great regard for his brilliant and promising son-in-law, the naturally conservative turn of his mind asserted itself and expressions, facial and verbal, of a decidedly skeptical character are very distinctly recalled. The operation took place, and of course was conducted with the utmost coolness and care. Professor Syme laid open the cavity of the enormous aneurism; hemorrhage, such as it has not often been my fortune to witness, was encountered, and the fact is that had it not been for Mr. Lister's newly devised instrument, by which, as he had hoped and intended, the circulation through the abdominal aorta was perfectly controlled, Professor Syme could not have escaped the great misfortune of losing his patient on the table from hemorrhage. As it turned out, not only was that catastrophe avoided, but the ligature of the *common*, *internal*, and *external* iliac arteries had the effect of saving the patient's life. It has been my privilege to place on record in the medical journals several cases in which by the use of this very instrument the lives of my patients have been saved, which otherwise would have been quite impossible.

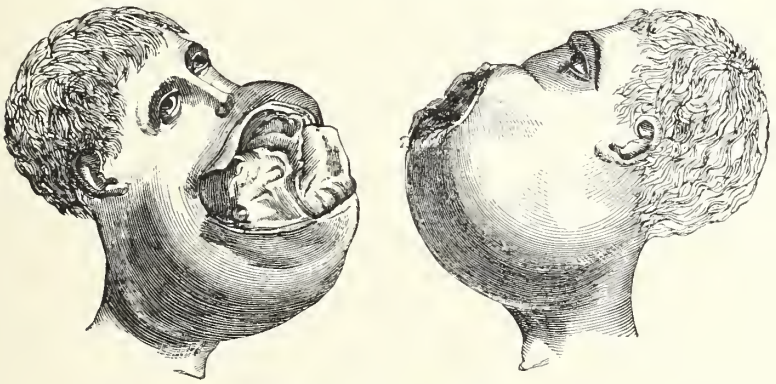
An eminent American surgeon, visiting Edinburgh and enjoying the privilege of association with Professor Syme in his hospital work, obtained a photograph of the Professor, and laying it before him, in the presence of some of my classmates and myself, requested the favor of the autograph of the original. Without a moment's hesitation the simple words "James Syme" were written on the lower margin of the counterfeit presentment. The distinguished American then said, "Now add, 'Professor Clinical Surgery in the University of Edinburgh, etc., etc.'" This latter request was met with a quiet but dignified refusal, and when the question "Why not?" was asked, the response came promptly, "That is supposed to be generally known."

The following anecdote has been frequently quoted by members of the profession intimately associated with Professor Syme. The absolute accuracy of all the details is not fully vouched for by the present writer; at the same

time it seems sufficiently probable and characteristic to justify its insertion here. During a meeting of the British Medical Association in Edinburgh, it so happened that Professor Syme performed an operation for the removal of the entire tongue for cancer, one of the many surgical procedures in regard to which Syme's claims to be a pioneer are beyond question. He had performed the same operation once or twice before with but indifferent success, and, in certain quarters, unkind criticisms had been indulged in, and even the justifiability of the operation called in question. On this occasion a large number of the members of the British Medical Association attending the meeting in Edinburgh made it a point to be present at the operation, which all eye-witnesses agree in declaring to have been performed with the utmost coolness and deliberation, the presence of the distinguished strangers having no appreciable effect upon the operator's conduct or manner. After the patient had been removed to his bed in the ward, the audience gave vent to their feelings of surgical admiration and enthusiasm by long and loud applause. The Professor calmly turned around, as he was drying his hands, and pointed to a notice on the wall, requesting order and silence in the amphitheater. This facetious act elicited a fresh burst of applause. He then stepped forward, with the evident intention of saying something, and instantaneously every sound ceased, every breath was held, every ear was eager to catch the slightest sound which dropped from his lips. Rumor has it that the following was what they heard: "Gentlemen, permit me to assure you that I have reached an age and a position in the profession at which I care neither for censure nor commendation;" and he bowed politely and walked out of the amphitheater. This was the only reply which he ever condescended to tender to his carping critics so far as the operation for cancer of the tongue was concerned.

The accompanying illustration represents Minto House, a building familiar to all Edinburgh people and almost worshiped as a shrine by all students and admirers of James Syme. It was in that comparatively humble building that he established an institution of surgical learning which constituted a challenge and proved to be a successful rival to the Royal Infirmary and all surgical teaching institutions of Scotland. Finding himself, from one cause or another excluded from hospital facilities, Syme, a young man with comparatively undeveloped fame and meager financial resources, established an opposition school to the great and long-famed hospital, the Royal Infirmary of Edinburgh, and that too at a time when the immortal Liston, with every advantage of fame, of wealth, of place, and of power, reigned supreme in the medical world of Great Britain. No student who like myself was intimately associated with Professor Syme in his later days of supreme fame and power, can fail to remember the quiet, dignified expression of pride with which he referred to his experience and achievements at Minto House.

Professor Syme's faculty of recollecting instantaneously the names and faces of former patients was quite remarkable. Two instances of many which came under my own observation I think of sufficient interest in more than one respect to mention here. The first is that of his patient Penman, whose likeness before operation is here reproduced (copied from the collection of Syme's works for which the writer is responsible). This most remarkable tumor of the inferior maxilla was removed along with the entire bone in the year 1828, when the patient was little more than a boy and the surgeon only twenty-seven years old. The inexpressible blessing of anesthetics had not at that time been discovered. The operation proved a complete and permanent success. After the lapse of thirty-four years, this patient, having in the meantime for obvious reasons cultivated a long and full beard, walked one morning into the Professor's consulting-room, and without saying a word held out his hand to his benefactor of long ago. The writer and all present were then treated to the agreeable surprise of seeing Mr. Syme's instantaneous recollection of his former patient, whose case had no doubt through all the intervening years been a matter of justifiable pride and gratification to him.



The Case of Penman.

All present were no less surprised than pleased to see how little the operation had injured either his appearance or his articulation. When one regards this great case in all its features, does it not suggest the suspicion that if it were not for the consoling and supporting aid furnished to both surgeon and patient by anesthetics, nearly if not quite seventy-five per cent. of the brave and brilliant surgeons of to-day would be devoting their energies and their bravery to other and less trying fields of usefulness?

The only other example of Syme's ability in the matter of recalling former cases which we have space to mention here is the following: A gentleman of immortal fame in the noblest fields of British literature had been operated upon by Professor Syme for a somewhat uncommon form of "*anal*" affection and had made a good recovery. After the lapse of several years he decided that it would be wise to again consult the Professor, whom he had not met since the successful conclusion of his former treatment.

The patient upon entering the Professor's private room was immediately and without ceremony requested to remove some portion of his apparel and to recline over the examination couch. The Professor, although not entirely successful in recalling his patient's *face* during the moments which elapsed previous to the actual commencement of the examination, no sooner cast his eye over the field of operation than he instantly recalled the name and identity of the individual and apologized for having failed to remember fully at first sight so distinguished a patient.

About the time that my immediate connection with Syme and all the pleasant associations pertaining thereto ceased, a keen discussion arose in Great Britain on the subject of professional fees. Mr. Syme, whose liberal notions and strict professional integrity were everywhere known, having been appealed to on this point, wrote the following letter to the editor of *The Lancet* in explanation of his views on the subject:

> My own feeling is opposed to a fixed rate of charge for either country visits or operations, since the service so rendered is the same however much the circumstances of patients may differ. The tradesman may put a value on his commodities and limit their distribution to those who are able to comply with the terms of sale. But any one who practises physic or surgery as a profession should endeavor to render the means of relief which he possesses so far as possible available to those who require them, and with this view place the liberality of the rich to the credit of the poor.

The following note unquestionably testifies in the clearest manner to Mr. Syme's consistency in regard to this important side of a medical man's conduct and rule of life. I take pleasure in quoting it here for more reasons than one: First, as bearing testimony to his moral courage and accurate business sense of fair play; second, as a characteristic example of his terse, forcible and elegant style of literary effort; third, for personal reasons which will obviously appear after the note in question has been read:

> Mr. Syme presents his compliments to Lord —— and begs to say, from the enclosure which Lady —— had the kindness to give him on Saturday, he fears there may have been some misapprehension with regard to the professional service which he rendered your lordship. The operation, though undertaken without delay or ceremony, was one of the most important in surgery, directly affecting the life of the patient, and seriously involving the character of the operator. Mr. Syme ventures to hope that Lord —— will do him the justice of attributing this communication to its true motive, which is simply to prevent his lordship or himself from remaining in a false position.
>
> (Signed) JAMES SYME.

I have no doubt that the treatment in this rather embarrassing case proved successful. At all events, in the single case in which I tested it nothing could have been more satisfactory. A very rich man sent me a fee which I deemed inadequate and altogether out of proportion to the value of the service rendered. In acknowledging the receipt of his remittance I ventured to quote Professor Syme's note to his lordly patient and politely asked if he did not think *that* an ingenious and gentlemanly method of placing a grateful and appreciative patient and his doctor right in their financial relations to each other. He replied promptly and with great good humor and enlarged my fee just tenfold! If any of my former pupils or professional friends should ever have occasion to fall back upon this expedient it will be only one instance among thousands in which through my humble agency young members of the

profession have obtained valuable lessons and useful inspirations from a great man who was dead before many of them were born. "*And he being dead yet speaketh.*"

Few men in any department of science, medicine or religion have been more resolute and careful in the matter of maintaining and defending unchanged the principles and doctrines promulgated by themselves than Professor Syme. Consequently it will be readily understood how great an honor it seemed for a young man, at or about the age of twenty-five, to be entrusted with the responsible duty of collecting and publishing, to the best of his ability, the writings which Professor Syme had contributed to medical literature during his long life; especially when *carte blanche* was freely granted to the youthful editor to make his own selections and to use his own judgment as to what should be included and what should be excluded, what should be published just as it originally appeared, and what should be changed. The following extract from Professor Syme's letter of authorization to his former pupil, the writer of the present article, demonstrates and gives full expression to the kindly confidence reposed in him by his venerable teacher: "As to your proposal of republication in America, I have long desired that what I have written should be known in a pure form, and will therefore feel much obliged by your undertaking the task." That the effort, undertaken in the spirit of loving enthusiasm, was not in any sense a failure we have the voluntary testimony of so independent and efficient a critic as the late Professor Samuel D. Gross, of Philadelphia, who, in his autobiography, refers to my edition of Syme's surgical works in the following terms:

> As a writer, Mr. Syme was felicitous, his thoughts being always well chosen, and conveyed in a clear, terse, vigorous style. He is best known by his "Principles of Surgery," which was published soon after his entrance into the profession, and which was enlarged and improved in each succeeding edition. The best edition of his works, embracing a complete collection of his monographs, was issued by J. B. Lippincott & Co., of Philadelphia, in 1866, under the editorial supervision of a former pupil, Dr. Donald Maclean, the present Professor of Surgery at Ann Arbor University, Michigan.

In the preface to that edition I had ventured to quote from the author of "Rab and his Friends," Dr. John Brown, the following authentic reference to Professor Syme's character:

> Everywhere, personally, professionally and publicly, reality is his aim and attainment. He is one of the men—they are all too few—who desire to be on the side of truth rather than to have truth on their side, and whose personal and private worth are always better understood than expressed. It has been happily said of him that he never wastes a word, a drop of ink, or a drop of blood, and his is the strongest, exactest, truest, immediatest and safest intellect dedicated by its possessor to the surgical cure of mankind I have ever yet met with. He will, I firmly believe, leave an inheritance of good done and mischief destroyed, of truth in theory and practise established, and of error in the same exposed and ended, such as no one since John Hunter has been gifted to bequeath to his fellow men. As an instrument for discovering truth I have never seen his perspicacity equaled. His mental eye is achromatic and admits into the judging mind a pure, white light, and records an undisturbed, uncolored image, undiminished and unenlarged in its passage, and he has the moral power, courage and conscience to use and devote such an inestimable instrument aright.

In regard to this quotation Professor Syme, in a private letter to me, said: "Your preface seems to me to be a little '*loud*,' but I dare say it will do for your side of the Atlantic."

Early in the year 1872 I had the pleasure of reading in the Edinburgh papers an exceedingly able and witty speech by Professor Syme on the subject of changing the site of the Royal Infirmary. This was a question with regard to which his own mind had undergone within a very brief period a perfect revolution; having opposed, with all the vigor and intensity of his nature, the whole proposition of "removal," it came to pass that he changed his mind and advocated the opposite plan with equal force and spirit. One week after reading this able statement of his latest views on the subject, the result of which is the magnificent institution now known as the Royal Infirmary and the new University of Edinburgh, I was grieved by information of his having been stricken with paralysis. My mind was at once made up to lose no time in making a pilgrimage to Edinburgh, in the hope that I might once more have the privilege of speaking to him face to face and shaking hands with him; consequently I presented myself one morning at his consulting-room in Shandwick Place, Edinburgh, where he received me with the utmost cordiality. The change produced in him by his attack of cerebral hemorrhage was very sad to behold. His whole condition, physical and mental, was very much changed, but still characteristic words of advice and encouragement were kindly impressed upon me. I was at the time suffering from a peculiarly severe personal affliction, with regard to which he had in previous communications expressed his utmost sympathy, but which in my interview with him I felt for his sake impelled to avoid all reference to. As we parted and I had shaken hands with him for the last time and was turning away from his door, he seized hold of the collar of my coat, and with a quick, nervous movement, turning me rapidly around so that he could look into my face, he said: "Be sure and keep your eye on Lister and his antiseptic investigations; I feel sure that there is something in them. *And remember, sir, look forwards, do not look backwards!*" These were the last words I had the privilege of hearing from his lips, and they have served me a useful purpose in more than one trying position, and they will be remembered so long as my memory lasts with emotions of most sincere gratitude and love.

HEMORRHAGIC PANCREATITIS—A CASE HAVING UNUSUAL MEDICO-LEGAL RELATIONS.*

BY CHARLES W. HITCHCOCK, A.M., M.D., DETROIT, MICH.

The literature of pancreatitis is not so extensive nor its pathology so well known but that I may be pardoned for bringing the subject to the attention of the profession, more particularly in view of the comparative rarity of incidental medico-legal relations. Let me say at the outset that I have no intention of going at all carefully or minutely into the pathology of this case.

It is only since 1848 that any very intelligent idea has obtained of the physiology of the pancreas, and its diseases have received little attention as compared with those of other abdominal viscera. The space devoted to diseases of this organ in current text-books is surprisingly small; but it

*Read before the Detroit Medical and Library Association.

is not, perhaps, remarkable, considering the comparative infrequency, rapid development, and almost uniformly fatal termination, that the disease under consideration presents a relatively meager literature.

The most able and exhaustive article which I have been able to find is the Middleton-Goldsmith lecture for 1889, by Dr. R. H. Fitz, of Boston, published both in the *Medical Record* and *Boston Medical and Surgical Journal* for that year. He takes up the general subject of acute pancreatitis, considering separately the hemorrhagic, gangrenous and suppurative varieties, although the first two present frequently the same clinical picture.

This disease is notable for its frequently rapid and insidious development —in several cases the attack occurring in a patient up to that time (supposedly) in perfect health. Death has occurred as soon as one half hour after the inception of an attack, and has been delayed for several days. The rapid development of necessity increases the obscurity of the etiology. Apparent factors are previous attacks of gastro-duodenitis, the excessive use of alcohol, and possibly injury, though concerning this latter cause there is little mention to be found anywhere.

The earliest known symptom of an attack of hemorrhagic pancreatitis is pain, usually referred to the epigastric region. This pain rapidly becomes so severe as to be excruciating and suggestive of impending death. Vomiting, and later collapse, with all the symptoms of profound shock, follow, death ending the scene, most frequently within two or three days from the onset of the attack. Fever is often present, as also is constipation; diarrhea is rare. A circumscribed tympanitic abdominal swelling is to be detected, and the whole abdomen may later become swollen and tympanitic.

Ante-mortem diagnoses are infrequent, though Thayer reports a case correctly diagnosed, and refers to two later cases in which an ante-mortem diagnosis was correctly made. The tentative diagnosis frequently falls on acute intestinal perforation, the clinical picture being that of a perforative peritonitis. Appendicitis, irritant poisons and acute intestinal obstruction are factors to be considered in the differential diagnosis.

Operation is apt to be suggested, and Osler mentions one case in which operation was performed after a diagnosis of intestinal obstruction, when the true condition of affairs was revealed, the abdominal cavity containing a little bloody serum. That this case recovered is another of the few suggestions that the disease is not entirely hopeless.

The sometimes extraordinarily rapid course of an attack is well illustrated by a case reported by Draper in the *Boston Medical and Surgical Journal* for 1880: The patient was a printer, thirty-one years of age, of intemperate habits, but apparently in perfect health. He had eaten a hearty dinner on the day of his illness. At 6 P.M. he experienced pain, soon followed by nausea, and fell from his chair. He was seen soon after, and died on his way to a hospital, fifty-four minutes after his first symptoms. The pancreas in this case was normal in shape, size, and position; the retro-peritoneal connective tissue infiltrated with blood.

The sudden occurrence of a fatal ending suggests the possibility of interesting medico-legal relations, though few cases seem to have occurred where

such questions have actually arisen. Formad reported a case of an aged spinster of seventy, whose sudden death from the disease at first gave rise to suspicions that she had been poisoned by her servant. A case reported by Zenker, and referred to by Friedreich, would, had the deceased carried accident insurance, undoubtedly have given rise to most interesting questions. It was the case of a drunkard, a very corpulent individual, who was found dead in the water. "The evidence showed that this man, while standing near the water, was overtaken by sudden death, and fell into the water while in the act of dying."

References to injury as a possible factor in etiology are, as has been already intimated, very few. Friedreich (in Ziemssen's Cyclopædia) has this to say: "That acute traumatic pancreatitis may result from contusion or a blow in the epigastrium will scarcely be doubted, though we do not happen to have any direct proofs in support of it."

Dr. R. H. Fitz, in a recent letter to me, in reply to my inquiry, says: "Traumatism may cause hemorrhagic pancreatitis, but it must be violent, as from the kick of a horse, the weight of a heavy wagon, etc. I know of no instance where a simple fall was the cause. A fall may have followed and been caused by the hemorrhage."

In the American Text-book of Theory and Practise of Medicine (vol. ii, p. 979) the same author cites the only case of which I can find record in which injury is definitely assigned as the probable cause. Permit me to quote this case: "The importance of trauma in the production of hemorrhagic pancreatitis has been recently illustrated by the occurrence of a case in the wards of Dr. J. Collins Warren at the Massachusetts General Hospital. The patient was brought to the hospital intoxicated and in a state of collapse. He had been run over by a wagon, and died at the end of thirty-six hours. Several of the lower ribs had been broken, the liver was torn, and hemorrhage had taken place in the body of the pancreas near the tail. There were multiple foci of fat-necrosis, and the microscopic examination of the pancreas showed a cellular infiltration of the interstitial tissue." It seems to me only fair to raise the query if the significance of this case is not materially diminished by the extraordinary direct violence, which was so severe as to lacerate other organs and may have inflicted mechanical injury to the pancreas as well. Besides, the acknowledged fact of his intoxicated condition when admitted to hospital would raise the presumption of probable habitual alcoholic excesses, which may have had to do with the pathological conditions here found.

The case which gave occasion for this paper I have had knowledge of as surgical adviser to an accident insurance company, claim having been made for the face of an accident policy held by the deceased, whose death and subsequent claim brought out the following facts:

J. M——, aged forty, married, acting at the time as night yard-master for a railroad, discharged his usual duties through the night in apparent good health. At about 5.30 A.M., April 16, 1897, he assisted in turning an engine on a turntable, walking around on a wooden coping and pushing, with his hands resting upon a large horizontal timber about on a level with his

abdomen. Immediately after this he is said to have complained of severe abdominal pain. A fellow employee was the only one with him at the time, and he, in proofs offered to the company, in reply to a question asking for a description of the accident as he saw it, swore to the following statement: "After pushing on turntable, he held his hand on his abdomen and complained of severe pain." It is to be noted that this man was at this time strangely oblivious of any fall or other injury sustained by deceased, although he swore that he was standing by his side at the time. Later, however, when there was talk of a possible suit and several questions were asked as to the occurrence of the injury, this man suddenly became possessed of a lively memory of a fall sustained by the deceased while pushing on the turntable. At the spot indicated as the place where the insured fell, the distance from the coping on which he stood to the ground is only thirty-five inches, and this witness further averred that in falling the deceased fell against him, thus presumably breaking the force of the fall, which in any event would hardly seem to have been a very severe one, and most unlikely to stand in a causal relation to later developments.

Moreover, the patient himself evidently attached no importance to any injury (if he had one) as a possible cause of his symptoms; for to the physician who first attended him and who inquired concerning injury, the patient denied injury, nor did he tell a second physician (his own medical attendant) who was called in at his request, though perfectly conscious and mentally clear when seen by him. It is quite possible that his alleged fall, which is certainly doubtful, may have been caused by the sudden inception of the attack, the severe pain making him faint.

After assisting at the turntable, the patient walked about forty rods, removed his working clothes himself, and then walked home, a distance of about fifty rods, perhaps. All this seems entirely inconsistent with the theory of a fatal internal hemorrhage from a vessel ruptured by injury. He came into his boarding-house with hand clasped to his right side, saying, "Oh, I feel so bad!" and appearing to be in much pain. He soon after, however, ate a fairly good breakfast, and for a short time felt easier; but the pain soon increased in severity and vomiting ensued. So severe was the pain that he repeatedly exclaimed, "Oh, will it kill me?" The physician, who saw him about 8 A M., found him in great pain, which large doses of morphine relieved only temporarily. He was alternately quiet and in great pain through the day. His own physician, who was called in in the forenoon of the following day, found him in apparent shock, which steadily deepened. There was no history of injury given, only the history of almost incessant severe pain. A tumor-like mass was made out in the region of the appendix and a diagnosis of probable appendicitis made, and with operation in view he was removed to a hospital.

Operative measures were, however, temporarily deferred, and then the patient was so evidently moribund as to forbid such procedure. To another surgeon who saw him with reference to operation, he presented the clinical picture of a perforative peritonitis with its attendant shock. Death occurred about fifty-four hours after the first pain.

A frequent and usual condition observed post mortem is that of disseminated fat-necrosis, a condition interestingly discussed by Thayer (*American Journal of the Medical Sciences*, 1895). He seems inclined to reject both the degenerative and infectious theories relative to fat-necrosis, and says: "While the relation of disseminated fat-necrosis to acute pancreatitis is not definitely settled, the researches of Langerhans are certainly very suggestive. The process seems in almost all instances to take its origin from the region of the pancreas. The affected areas are usually quite sterile. It has apparently been shown that exactly similar changes may be produced by the action of pancreatic juice upon fatty tissue." Langerhans' suggestion here referred to was that the process might possibly be due to the action of the fat-splitting ferment from the pancreas upon surrounding fatty tissue, the fatty acids afterwards entering into combination with lime.

Of course, if Langerhans' suggestion contains the true explanation of disseminated fat-necrosis, any violent injury, which so structurally injured the pancreas as to allow the escape of pancreatic juice, would at once supply the conditions requisite for the development of fat-necrosis. In the majority of cases, however, where injury plays no part, the means for a free escape of the pancreatic juice are not so obvious.

Upon post-mortem section in this case areas of fat-necrosis were at once apparent and were immediately suggestive of pancreatitis.

Evidences of peritonitis might lend a shade of color to claims as to injury being a probable cause. Fitz has this to say: "The peritoneum usually shows no alterations, although evidence of recent peritonitis may at times be found."

A sero-fibrinous peritonitis was found in this case. There was considerable fluid in the abdominal cavity, of the color of prune-juice. The abdominal fat was very thick and full of congested vessels. The perirenal fat was greatly increased, and dark on the outside, as if it were a mass of clotted blood. This appearance, Dr. Warthin tells me, proved to be due to necrotic changes.

By the courtesy of Dr. A. S. Warthin, I am permitted to quote from the post-mortem notes as to the gross changes in the pancreas: "The most important changes were found in this organ. It was enlarged, weighing about three times (320 grammes) as much as normal. It was abundantly infiltrated with fat, which showed the same necrosis as that in the mesentery and omentum. The organ was hemorrhagic throughout, a large hemorrhage being found about two inches to the left of the head, the blood forming a large clotted mass having a sour odor, extending retro-peritoneal on each side along the vessels toward the kidneys and apparently confluent with the hemorrhagic areas in the fatty capsule of the right kidney. The pancreatic tissue varied in color from pale lemon to dark grayish-yellow, cloudy, and softer than normal. Each lobule was outlined by a line of hemorrhage, varying in size in different areas, the largest areas of hemorrhage being adjacent to the areas of necrosis. A large clot had formed beneath the middle of the organ, raising it about an inch and a half. The areas of necrosis in many places were finely cheesy, crumbling in the fingers like fine ashes."

I am advised that the blood was neither in appearance nor amount such as might be expected after a fatal hemorrhage from a vessel ruptured by sudden

injury. This was the observation and impression of both physicians conducting the autopsy. It is interesting to note, however, that a surgeon who had diagnosed perforative peritonitis and who had observed part of the autopsy, thought that there was a large amount of fresh blood present and that it could be traced even to its perforation through the peritoneum. The attending physician, too, who had leaned to a similar theory, was also much impressed by the evidence of hemorrhage and readily swore that death ensued from an internal hemorrhage, due to a ruptured blood-vessel, although no such rupture of vessel was found after careful examination.

The insuring company was confronted with these facts: the insured was dead; accident was alleged; and, though the deceased had told no one of any injury and had even denied it when asked, a fellow employee, the only one with him at the time, was ready and willing to swear to a fall.

The autopsy was made by competent men, who established conclusively, by careful pathological findings, that death was from hemorrhagic pancreatitis. There was, however, some difference of opinion among the casual observers of the autopsy. Of at least four physicians who were cognizant of the case and were present at the autopsy, no one could swear, owing to our meager knowledge of the etiology of the disease, that the condition found might not be the result of injury.

This was another fatal doubt for the company's side of the case, and a compromise was advised and was finally agreed upon by both sides.

The case is here presented because of the unusual medico-legal relations, even though it is very doubtful if actual injury played any part here whatever. Still, from the case quoted by Fitz as probably due to injury, we are rather forced to conclude that the trend of some competent opinion at least is toward the view that injury may cause the disease in question, the disease run the usual rapid course, and the case present all the usual pathological evidences on post-mortem section, although there seem as yet to be no cases on record which, independently of other possible causes, would conclusively establish or confirm such views.

The Morphine Habit as a Legal Defense.—A kleptomaniac in one of the British courts plead guilty and her counsel assured the bench that she was in no want of money, but had sufficient means to enable her to live comfortably, and asked that she be treated leniently on the ground that the theft was due to the effects of the excessive use of morphine. According to the testimony, she had consumed ninety-six grains of morphine in a single week. The magistrate suspended judgment, upon the defendant giving security in £50 to appear for sentence when required. De Quincey's daily consumption of laudanum was nine ounces, and there is a case on record where 120 grains of opium was taken at once without producing death. The tolerance of opium and its salts proves in reality much more than old women's fables, and instances of enormous doses are in the possession of nearly every family practitioner. A poisonous draught of laudanum cannot be measured by cases on record.

IN MEDICAL CONCLAVE.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

At the regular meeting Monday, January 24, the paper of the evening, entitled "La Grippe," was read by Dr. Delos L. Parker. The essayist stated that since the introduction of the disease to this country in 1889, its contagious character was the most important discovery in connection therewith. Pfeiffer in 1892, at the Hygienic Institute in Berlin, isolated the causative micro-organism which exists in the secretions of the nasal and oral cavities. The lower animals are immune to its invasion. The disease assumes three types—respiratory, gastro-intestinal, and nervous—and the paper contained a long list of the symptoms accompanying the disease. The mortality is very high in large cities, 300 deaths having occurred in New York last February from it. The typical and well known characteristics were recited. The disease is very persistent, and will adhere to the afflicted individual until his own instinct or professional skill advises him as to the proper course to pursue.

The treatment of this condition was classified under two heads—hygienic and therapeutic. The former embraces rest in bed, warmth, pure air, and plain food; the latter, small doses of belladonna, large ones of strychnine, and for the congestion of the nasal mucous membrane a four-per-cent. solution of antipyrin every three or four hours as a spray is recommended.

The object of the paper was, first, to call attention to the chronic nature of the disease, and second, the importance of a warm, even temperature in the treatment.

The discussion which followed was opened by Dr. F. L. Newman. The point in the paper new to him was the contagiousness of the disease, which has been abundantly verified since the isolation of the bacillus by Pfeiffer. Isolation of the patient is indicated for that reason. As regards treatment we have no specific for grippe, and would concur in the treatment as laid down by the writer.

Dr. W. S. Anderson said the disease was so common a one that the laity now diagnose their own cases. Owing to neglect oftentimes on the part of the individual affected dangerous sequelæ are apt to arise. The particular lesion which he had seen many times and which he thought worthy of notice was hypertrophy of the adenoid tissue of the pharynx as a sequela of the grippe. Unfavorable symptoms continue until the lesion is removed.

Dr. Jennings was inclined to doubt the identity of the disease which has been prevailing from time to time during the last three or four years with influenza as it first presented itself. The disease is exceedingly contagious, has a very short period of incubation, and with the rapid facilities of communication between communities or countries it becomes wide-spread in a short time. Since the discovery of the micro-organism by Pfeiffer it opens up a wide field for bacteriological investigation.

Dr. McClintock said Pfeiffer was unable to prove that the germ was the cause of the disease. He was able to grow it from pure culture, but could not

reproduce the disease in animals. In connection with an older physician in Ann Arbor he had had considerable experience in treating the disease as it occurred among students in the University. His associate had favored phenacetine, while he had preferred salol in considerable doses, as the disease frequently has associated with it the uric acid diathesis.

DETROIT ACADEMY OF MEDICINE.

At the regular meeting held on January 25 Dr. Frank B. Walker read an inaugural paper entitled "The Hypertrophied Prostate." The paper was a careful and discriminating one, illustrating modern views in regard to this much discussed gland. The anatomy of the prostate, especially in its relation to neighboring organs, was carefully given, so that the difficulties from enlargement might the more readily be understood.

Treatment of the hypertrophied condition was confined wholly to the surgical procedures, and was described under four heads: (1) Dilatation; (2) prostatotomy, urethral and perineal; (3) prostatectomy; (4) castration. All radical means for cure are either ineffective or present an unusually high mortality. It is difficult to explain why, for instance, castration, which would seem a very simple operation, should have a mortality of fifteen or sixteen per cent. Castration, however, seems to be about as effective a method for relief of this condition as we have at present.

In the discussion two points of importance were brought out. Since the prostate is the homologue of the uterus, viburnum prunifolium, which will undoubtedly relieve the congestion of a subinvoluted uterus, should act on the hypertrophied prostate. In the few cases treated by it the drug has given decided results.

Patients with deep stricture do not present enlarged prostates because muscular force necessary to overcome the stricture prevents the accumulation of residual urine in the bladder; hence the late Professor Palmer's simple method of compressing the urethra at some point by the hand and attempting to force the urine out should relieve the early stages of the disease for a time, if not altogether.

WAYNE COUNTY MEDICAL SOCIETY.

At the regular meeting of this society, held on Thursday evening, January 27, Dr. J. F. McPherson read an instructive paper entitled "Vaginitis." After reviewing the gross anatomy of the vagina and contiguous structures, that a perfect understanding of the phenomena of vaginitis and its results might be kept in mind, the author proceeded to the treatment of his subject proper by classifying the inflammations which attack the vagina under seven divisions, among the most important of which, to the general practitioner, are simple catarrhal, gonorrheal, adhesive, and diphtheritic. The author outlined the most salient features of each type of the disease, and gave his favorite plan of treatment in each case. The greatest amount of interest centered on the gonorrheal type of the disease and its scientific treatment. The author's

treatment of such cases consists in the use of thorough cleanliness of the vagina and vulva, and the application of antiseptics and astringents locally, to be supplemented by the prompt curettage of the uterus should the disease extend to that organ.

The discussion turned upon the advisability of the use of an $AgNO_3$ solution in the treatment of gonorrheal vaginitis, there being a division of opinion in regard to the propriety of its use, and also, if used, the proper strength of the solution.

Dr. Honner advocated the application of the full strength peroxide of hydrogen for vaginitis, either gonorrheal or diphtheritic, stating that he has had excellent results from its use, especially in the latter variety.

Aged Parents.—A woman in Toronto who is over sixty years of age gave birth on January 21 to a baby girl. Her husband, to whom she was married seven years ago, is seventy-eight years of age. The mother has been married twice, and this is her twenty-second child. The day after this, not to be outdone by any foreigner, a woman sixty-five years old, living in Oklahoma, also gave birth to a baby girl. This mother has also a number of other children, ranging in age from thirty-five to forty-five years. Some of the male sex have, as might naturally be supposed, better records than this. A Tyrolese gentleman named Parravicini is reported to have married at the age of eighty-two years, and to have been the father of seven children, the last of whom was posthumous, his father having died at the age of one hundred and four years. Juba, king of Mauritania, is believed to have died at the age of ninety-one years, leaving a posthumous child.

On the basis that attacks of acute gastro-intestinal indigestion in infants are caused by fermentation of undigested food (*Philadelphia Polyclinic*), generally milk, those connected with the obstetric clinic have found that mercurous chloride (calomel), in doses of one-twentieth to one-thirtieth of a grain, administered every hour until a grain is taken, has given most excellent results. All milk diet should be stopped for at least twelve hours, after which beef juice or peptone preparations may be given until the irritation has subsided.

The Biblical Myrrh.—This was not myrrh, as we know it, at all. The error arose from the similarity of the Hebrew word and the Arabian name for myrrh, *morr*. The Biblical word should have been translated *balsam*, which is made plain by the fact that it was a highly odorous liquid, while myrrh, or the myrrhs (there are several of them) that we know anything about are solids, possessing an odor it is true, but scarcely aromatic. The "balsam" of the Jews is the exudation of a palm known as *Commiphora opobalsamum*.

Malthusian doctrines do not seem to be popular with the London poor. A woman who recently applied for relief to a magistrate in some domestic complications stated that she was the mother of twenty children.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE FREE GRANULES AND IMMUNITY.

Theories of immunity continue to grow apace. The rapid changes new investigations enforce in accepted views make it difficult for the general observer to appreciate the exact situation, but he must feel that the truth of the matter is being slowly but surely revealed.

A short time ago certain "small, generally round, colorless granules," readily distinguishable from blood-plates, were described by Müller, an assistant in Nothnagel's clinic in Vienna. In the last number of the *Johns Hopkins Hospital Bulletin*, Stokes and Wegerath, of the bacteriological laboratory of the Baltimore Health Department, describe an investigation of these granules and advance a theory of their relation to immunity.

In all the specimens of blood which he examined Müller is said to have discovered a varying number of these small, refractive, spherical bodies of indeterminate origin and composition. From whence do these granules originate? It was noted that they resembled the granules of the eosinophilic and neutrophilic leucocytes. At times the granular leucocyte became actively ameboid, and the granules within the neutrophile exhibited characteristic activity. When this occurred the free granules increased in the plasma. This furnished what detectives would call a clue.

Do these free granules come from the leucocyte, and can they be seen to do so? Stokes and Wegerath think they do, and that they have observed this phenomenon. They record a series of observations and experiments, all of which strengthen them in the conclusion that the granules of the eosinophile and neutrophile are present as free granules in the plasma and serum.

What is the bearing of these bodies on the problems of immunity and natural resistance? The protective function of the leucocyte is a historic attribute. The doctrine of phagocytosis, while not comprising all the truth, contains an important part of it. This theory is summarized by Metchnikoff as follows: "We have the right to maintain that in the property of its ameboid cells to include and to destroy micro-organisms the animal body possesses a formidable means of resistance and defense against infectious agents." Buchner modified this theory by finding blood-serum bactericidal, though he

admitted that the leucocyte probably furnished the substance which gave it this quality. Since then Bordet, Bail, Shattenfroh, Dziergowski and other investigators have determined beyond all dispute the bactericidal power of the leucocyte.

The experiments by Stokes and Wegerath go to show that filtered serum is deprived of its bactericidal qualities, and that the presence of a sediment consisting of granules, leucocytes and red corpuscles restores to the serum its germicidal power.

It being therefore demonstrated that the leucocytes not only contain a bactericidal substance, but that under certain circumstances they can impart it to the surrounding medium, experimental proof is sought to show that the germicidal substance and the material that leaves the leucocyte are identical.

This proof is, of course, very difficult to obtain. These investigators are, however, satisfied that in the observed separation of these granules from the leucocyte this is confirmed.

The bearing of these facts upon immunity is important and induces the writers to advance the following theory: "The bactericidal power of the leucocyte of the blood, and of the serum of man and many animals, is due to the presence of specific granules, especially the eosinophilic and neutrophilic. When called upon to resist the action of invading bacteria, the granular leucocytes can give up their granules to the surrounding fluids or tissues."

To the general practitioner the bearing of such conclusions as these is of high significance. They emphasize the great importance of hematology as a branch of clinical diagnosis. Already the facts of leucocytosis have to be considered in estimating the prognosis of many diseases. In the near future the microscope may give us not only valuable means of measuring the *vis resistentiæ* of the patient, but may enable us also to make confident predictions as to his immunity.

EDITORIAL NOTES.

Predetermination of Sex.

A sensational rumor reached this country a short time ago that Professor Schenck, of Vienna, had discovered a means of so controlling the processes of embryology that the sex of the offspring could be fixed at will. This rumor has aroused general comment, especially on the part of the Sunday journalist, and multi-columned articles have appeared on the subject in the daily newspapers of nearly every large city dealing with the matter from a popular and sensational standpoint. As a matter of fact, Schenck has made no statement whatever upon this subject. He is, however, devoting a large amount of investigation to the matter, and The Medical Age is very credibly informed from Vienna that, to use an expressive colloquialism, the Professor has "something up his sleeve." No scientist will doubt that Nature has some law about the determination of sex which is not past finding out, and is indeed only waiting for some such embryologist as Professor Schenck to make the matter as clear as daylight.

The Fate of the Degenerate.

Moral reformers of the exalted type are particularly troubled to know what shall be done with the degenerate. Shall he be castrated or shall he be killed? A recent issue of the *Journal of the American Medical Association* has a long argument in support of the proposition to kill all idiots. The New York Medico-legal Society some time ago advised that suicide should be recommended to those more or less insane. Fancy sending a paranoiac a polite invitation that he should voluntarily step into the lethal chamber! Are not these suggestions equivalent to a vote of want of confidence in Nature? Why not give Dame Nature a chance? In other biological departments than the human she has been fairly successful in her efforts to eliminate the unfit. Why not put faith in the last of the beatitudes: "Blessed are the fit, for they shall survive."

The University Free Clinic.

The regents of the University of Michigan are confronted with the question, Who is entitled to free medical services at the University clinic? It is contended that as the clinic is State-supported, all citizens, rich or poor, are entitled to its privileges. It is to be hoped that the regents will avoid giving their sanction to such a view of the matter. It would be disastrous in the extreme, cruelly unjust, and imperil the honor of the medical profession. Those entitled to free medical services are the worthy poor alone. That a man should be entitled to the privileges of free clinics because he pays his quota of taxes in their support no more follows than that a man should go to a penitentiary, whenever he felt himself convicted of sin, simply because he contributes to the maintenance of such an institution.

Vivisection Again.

It is reported that the Senate of the United States is shortly to be presented with a vivisection bill, the purport of which will be identical with the one which did not come out of committee at the last session. It is the duty of every practitioner who has the progress of medical science at heart to interest immediately his Senator and Representative in Congress in the speedy defeat of the measure.

A French scientist, M. Mouchon, is said to have constructed a really practical solar machine for the purpose of distilling water in regions where a supply for drinking purposes cannot easily be obtained. The apparatus is portable, being carried on the back of a man without trouble. It will distil two and a half quarts an hour, or two gallons a day, enough to supply six or eight men. In Egypt, India, and certain other parts of the world, campaigning is rendered much more difficult by lack of drinking-water, and a contrivance of this sort is likely to be of the utmost value, furnishing the essential fluid in a healthful state and enabling the soldiers to cook their food rapidly. In some countries it is out of the question to get good drinking-water.

ITEMS AND NOTES.

Immigrants suffering from favus are prohibited by the Government entering this country.

Dr. Zaccharin, the eccentric physician of the late Czar Alexander, died on January 5.

Dr. Da Costa has had conferred upon him, by Harvard University, the degree of LL.D.

Dr. Charcot, of Paris, is to have a statue erected in his honor at the Salpêtrière Hospital.

Some of the New York medical colleges are considering the advisability of establishing chairs of hypnotism.

London continues to stand alone among the great cities of the world as not having a real, living university.

A committee has been formed in Paris for the purpose of collecting funds for a monument to be erected to the late Professor Tarnier.

At the present time malarial fever is said to be very prevalent in the lower Mississippi Valley on account of the subsidence of the great floods.

A Life of Pasteur.—It is announced that a biography of Pasteur is in preparation, its author being Pasteur's son-in-law, M. Vallery Radot.

On January 7 occurred in New York the death of Dr. Joseph O'Dwyer. He was famous as an introducer of the intubation treatment of laryngeal obstruction.

The smallest people of the world, according to the *Medical Scientific News*, are the Andaman Islanders. Their average height is below four feet, and average weight less than seventy-five pounds.

The bile from a venomous serpent, as the rattlesnake, the viper, and the cobra, given internally, injected hypodermically, and rubbed into the wound, is, according to Prof. T. R. Fraser, of the University of Edinburgh, a positive antidote.

Mr. Cornelius Vanderbilt, who is yachting in the Mediterranean, has with him as medical adviser a son of the late Professor Charcot. He receives an honorarium of $100 a day for looking after the ailments of the rich man and his family.

The Sin of Plagiarism.—The *Medical Record* of January 8 contains an article on Angina Pectoris which purports to be written by a Michigan doctor. The article is practically word for word a chapter from Sir William Broadbent's celebrated book on the heart.

A GERMAN STATISTICIAN has calculated that of every one thousand persons one hundred reach the age of seventy-five, thirty-eight the age of eighty-five, and only two reach ninety-five. In the seventeenth century the average duration of life was only thirteen years, in the eighteenth twenty, while in this century it is thirty-six.

THE late Sir Andrew Clark made the interesting remark that "after forty years of hard work he had striven ten years for bread, ten years for butter, and twenty years for cakes and ale." The largest number of physicians never reach beyond the bread and butter stages. If the last stage is reached, in too many cases the cakes are found to be stale and the ale musty.

THE London *Lancet*, in commenting editorially on the Widal test for typhoid fever, says that experience has taught that its value is not nearly so great as was predicted. The reaction is frequently not to be obtained until other signs place the diagnosis out of the realm of doubt. The test seems likely to have the same fate as the diazo-reaction, of which so much was at first expected.

FROM a careful study based upon over 4000 patients between the ages of nine and twenty years, Joubert in the *Indian Medical Gazette* arrives at the conclusion that the reason why girls in tropical countries menstruate at a relatively earlier age than those living in climates of the more northern countries, is not because of the influence of the climate, but because of too much sexual excitement.

LEGAL DEFINITION OF "MAIDEN."—From an examination of the definitions of the foremost lexicographers, the Supreme Court of Vermont comes to the conclusion, in the case of the State *vs.* Scodrick, that the common ordinary meaning of the word "maiden" is a young unmarried female not necessarily a virgin, and this meaning of the word is adopted in construing an indictment of a man for adultery with a "maiden."

DR. J. J. MULHERON left about the first of February for an extended European trip. He has promised to contribute to the pages of THE MEDICAL AGE a series of letters dealing with his observations of foreign hospitals and other matters of medical interest. The readers of THE MEDICAL AGE have long been familiar with Dr. Mulheron's trenchant and eloquent pen and will anticipate these letters with much satisfaction.

A NEW USE FOR THE X-RAY.—According to the Berlin correspondent of the *Medical News*, a German colleague has suggested the availability of the Roentgen ray in the selection of a bride. The end of marriage being the reproduction of the species, any hindrances to this end which exist, and which may be discovered without subjecting the person concerned to any indignity, he argues, should be found out before marriage. Any insuperable pelvic contraction may thus be easily detected, and he suggests that fiancees should exchange not only ordinary but *x*-ray photographs, when the preliminary steps to matrimony are being taken. This method, he considers, will be of invaluable service to members of the royal families to whom the birth of an heir is

all-important, and the skiagraph of his beloved will be one of the things that a princeling will be supposed to possess before seriously commencing negotiations for her hand.

Insurance of Students against Laboratory Accidents.—Since the beginning of the academical half-year all students attending the chemical and physical laboratories of the University of Heidelberg have been insured against accidents happening in the course of the lectures, of the laboratory work, and of scientific excursions. The insurance premium is paid by the treasury of the University, which has also made a new regulation in connection with the subject requiring the students to pay a small sum in addition to the class fees. This step is surely deserving of imitation by other universities, and such advantages ought not to be limited to laboratory work only, for medical students run much greater risk both in the dissecting rooms and as dressers in the surgical clinics and as clerks in the infection wards of the university hospitals. This fact should be considered by the other universities in the event of their imitating the example of Heidelberg.

Woman's Hospital and Foundling's Home.—The annual meeting of this well known and popular charity was held at the hospital January 18. The financial report showed the institution to be urgently in need of funds for the work of the coming year. During 1897, 423 patients were cared for in the various departments. In the maternity wards 115 women were confined, with natural labor occurring in 113 cases, one instrumental delivery, and one Cæsarian section. There were 37 deaths, of which 35 were infants and two adults, the latter the case of Cæsarian section, and an abdominal operative case in the private gynecological department. The morbidity records showed the hospital to have been in a particularly healthy condition during the year. It is hoped that increase of funds from charitable sources will permit of largely increased work during the year 1898. The old Medical Board, consisting of Drs. H. W. Longyear, W. P. Manton, J. H. Carstens, Lucy Utter, and Florence J. Huson, was reappointed.

A Remarkable Patient.—At a recent meeting of the Clinical Society of the Boston City Hospital a patient was presented who was convalescent from pneumonia. He was eighty-four years of age and had been a sailor. At various times in his life he had been the victim of the following injuries: Fracture of the left femur, which had united with marked callus and two and a half inches of shortening; of the left patella; of the head of the right tibia; of the left clavicle; of several of the lower ribs on both sides; of the index fingers of both hands (these presented marked deformity); of the left ankle; and the right scapula. He had also suffered from double otitis media, bronchitis, and asthma. When shown to the Society he had double incipient cataract. Several years ago he had had an epithelioma removed from the lower lip, and there had been no recurrence. The man's limbs are still muscular, though age and the vicissitudes of his career have necessarily caused some wasting. His breadth of shoulders and depth of chest gave evidence of what must have been extraordinary strength and endurance.

NEW PUBLICATIONS.

ESSENTIALS OF OBSTETRICS.

The purpose of this book is to furnish the beginner with an introduction to the study of obstetrics before he has acquired the necessary mental training which will enable him to analyze the subject for himself as elaborated in the larger treatises. The author has succeeded admirably in condensing the various points, and presents them in a clear and impressive manner, besides adding no little in the way of valuable suggestion, the result of his extensive experience. The reader is therefore left in no uncertain state of mind regarding the conditions with which he has to deal, or the most approved methods by which they may be handled.

As a comprehensive outline of the subject Dr. Jewett's book is to be highly commended as a safe guide to place in the hands of the medical student, and as a ready-reference book for the general practitioner. W. P. M.

Essentials of Obstetrics. By Charles Jewett, A.M., M.D., Sc.D., Professor of Obstetrics and Pediatrics in the Long Island College Hospital, and Obstetrician to the Hospital; and Harold F. Jewett, M.D. Illustrated by eighty woodcuts and three colored plates; pp. 358. New York and Philadelphia: Lea Brothers & Co., 1897.

HUGH WYNNE, FREE QUAKER.

Dr. Weir Mitchell has touched nothing he has not adorned. He is a living contradiction of the statement so often made that a successful physician cannot excel in other directions than the practise of his profession.

Hugh Wynne is an interesting character who lived in the times of Washington. His story is one which holds the reader's attention riveted until the last page is turned. Early Quaker life in Philadelphia is depicted in the vivid and faithful literary style for which Dr. Mitchell is noted. The book is an unqualified success as a novel and will be read with much interest by physicians.

Hugh Wynne, Free Quaker. Sometime Brevet Lieutenant-Colonel on the Staff of his Excellency, General Washington. By S. Weir Mitchell, M.D., LL.D. (Harvard and Edinburgh). Two volumes. New York: The Century Company, 1897.

THE RUBAIYAT OF DOC SIFERS.

"Doc Sifers" is a very charming character. He is the good old doctor, kindly, tender, and wise, "with perfect faith in God and man a-shining in his eyes"—one to whom in recognition of spiritual preeminence all natures naturally make obeisance, for "his soul shone from his eyes and laid its glory over us." Mr. Riley has given us another "Doctor of the old school" no less admirable than his celebrated literary *confrère* MacLure of Drumtochty. It is needless to say that this book will be widely appreciated. Mr. Riley's capacity for character delineation, combined with his rich and racy humor, make the volume a delightful one. It is to be hoped that "Doc Sifers" will make many professional friends.

Rubaiyat of Doc Sifers. By James Whitcomb Riley. Illustrated by C. M. Relyea. New York: The Century Company, 1897.

ALL ABOUT THE BABY.

This is a book which it is possible to praise highly. It is a catechism which provides in question and answer much that it is desirable every mother should know. The work is written from the homeopathic standpoint, so that we are not called upon to subscribe to all its teachings, especially "that homeopathy is the safest and best for infants and children." The work is an admirable example of the publisher's capacity for providing books of excellent appearance and useful contents.

All About the Baby. By Robert N. Tooker, M.D. Chicago: Robert Newton & Company.

THE PROGRESS OF MEDICAL SCIENCE.

PATHOLOGY AND BACTERIOLOGY.

The Gonococcus and Its Toxin.

In a paper on the "Gonococcus and Its Toxin," De Christmas (*Ann. de l'Inst. Past.*, August, 1897, p. 609) brings forward some new results of high interest. The first part of the paper is occupied chiefly with the biology of the organism. He finds that the best medium for obtaining fresh cultures is inspissated rabbit's serum. On this medium not only does the organism flourish with great rapidity, the colonies being visible sometimes within twelve hours, but it also retains its vitality much longer than on any of the other media tried. For obtaining the toxin he has used a mixture of one part of ascitic serum and three parts of peptone bouillon, with one per cent. of glucose added. A culture in this medium, incubated at 35°–36° C., has attained its full toxic power in from ten to twelve days, and at this time all the organisms are dead. Such a culture constitutes the "toxin." The toxic substance or substances are free in the fluid, though Christmas considers that they probably result from disintegrations of the bodies of the cocci. They are precipitated along with the albumen by alcohol, and the precipitate, after being freed from alcohol and desiccated, is used as the "dry toxin." With regard to the pathogenic action of gonococcus in the tissues of animals, his results are confirmatory of those of many others—viz., that the organism never multiplies to any appreciable extent—and he concludes that any inflammatory change results from the toxin present in the material injected. He finds, however, that marked effects are produced by injection of the toxin as above prepared. In rabbits, subcutaneous injection is followed by local inflammatory change, and in the case of young animals this is followed by the formation of pus, which is found to be quite free from living organisms. Intravenous injection, if the dose is small, causes fever and loss of body weight; if the dose is larger, subnormal temperature results, with greater loss of weight, and death may follow. When injected into the anterior chamber of the eye it produces intense inflammation of the globe, leading to suppuration and formation of hypopyon. Corresponding results follow intrapleural injection. The action of toxin on mucous surfaces is of special interest, as in the case of animals its application produces no result, whereas in the human subject it produces, when introduced into the urethra, acute catarrh attended with purulent discharge. This inflammatory change occurs a few hours after injection, and may continue for several days. Control experiments with other organisms treated in the same way had negative results. Five successive injections of the gonococcus toxin in the same subject, each inflammatory attack being allowed to subside before the subsequent injection, were all followed by the same result, there being no tolerance developed. He therefore concludes that in cultures of the gonococcus there is developed a toxic body which has an action specific to the human mucous membrane.

By repeated intravenous injections of the toxin in goats over a period of a year, a degree of tolerance to the toxin is developed, and the serum is found to have acquired antitoxic powers, though not of a high degree. Its antitoxic action is shown by its protecting rabbits both against the general effects of the toxin—loss of weight, etc.—and also against its local inflammatory action. He has not tested this serum in cases of the human subject, and doubts whether it is yet of sufficient strength to be of therapeutic value. He hopes, however, that ere long a serum will be obtained which will be of real benefit in at least the more chronic affections caused by the gonococcus—arthritis, salpingitis, etc.

A paper on the same subject ("Zur Pathogenität und Giftigheit des Gonococcus," *Centralbl. f. Bakt.*, September 30, 1897) by Nicolaysen may also be mentioned, the results being in part confirmatory. He found that injections of cultures of the organism into the joints of rabbits produced inflammation with abundant fibrino-purulent exudation. (Finger, Ghon, and Schlagenhaufer had previously obtained the same result.) But he found that the same effect followed when dead cultures were used, even when they had been killed by boiling. In the case of mice, both living and dead cultures, when injected intraperitoneally, cause death within thirty-six hours, there being in this instance, however, no local lesion. He concludes that in dead cultures of the gonococcus a substance is present to which both the local and general actions are due. As filtered cultures do not possess a toxic action, he infers that the toxin resides in the bodies of the cocci. Like other observers, he failed to find any evidence that gonococci multiply in the tissues of animals. He also found that the toxin was not destroyed even by a temperature of 120° C.—*The Practitioner.*

The Serum against Yellow Fever.

Professor Sanarelli recently delivered in Montevideo a lecture before an audience of medical practitioners and students on "Immunità contro la Febbre Gialla," in the course of which he showed that the serum of the blood of the human subject dead from yellow fever if injected into animals manifests no preventive power against the bacillus icteroides, while the serum of the blood of convalescents from the fever possesses a mild preventive action. Although, he continued, the simultaneous injection of the serum of convalescents and of the virus did not save from death, yet a fatal issue was avoided in most cases when the injection of the serum was made twenty-four hours before that of the virus, in the dose of at least "due centimetri cubi." Professor Sanarelli added that the human serum obtained from sundry individuals in normal condition and convalescent from other maladies, although administered in high doses, never produces in animals the slightest preventive or curative action. Wishing to immunize animals against experimental yellow fever he had to abandon rabbits and after them goats and lambs on account of their excessive sensibility even with minimum injections of the virus. His experiments accordingly were restricted to guinea-pigs, dogs, and horses. He began by injecting the icteroid toxin in the dose of 0.01 cubic centimeter.

The crisis of the first injection being over—a crisis lasting from twenty to thirty days—injections were made of 0.05 cubic centimeter of toxin, and continuing at this rate he succeeded, only after six or seven months, in obtaining one guinea-pig well "vaccinated" against the bacillus icteroides. The dog and the horse respond much better to injections of the virus than the guinea-pig. At present Professor Sanarelli has in his laboratory three dogs and two horses well "vaccinated" which have yielded serums giving perfect immunization against the experimental yellow fever in animals. On the strength of these experimental facts Professor Sanarelli says that in all likelihood—not to say certainty—this very serum, which saves animals destined to succumb almost without exception to experimental yellow fever, might be useful in the treatment of spontaneous yellow fever occurring in man, while possessing, moreover, a distinct preventive action against the disease.

THERAPEUTICS.

Treatment of Ozena.

In a paper lately read at the Congress of the French Society of Otology, Laryngology, and Rhinology, by Dr. E. I. Moure, of Bordeaux, the treatment of ozena was very fully discussed, and some new lights are thrown upon a subject concerning which there is much yet to be learned. The bacteriological aspect of the disease is touched upon, and the various forms of treatment in vogue are cited. The author strongly deprecates operation as a remedy, and after briefly referring to treatment of ozena by the introduction of bougies, snuffing, inhaling hot vapor, the use of ointment, massage, cauterization, he dwells at some length on interstitial electrolysis. Monopolar electricity was introduced as a remedy by Dr. Garrigon-Desarenès in 1884, who used it superfically. In 1895 Dr. Cheval, of Brussels, tried bipolar interstitial electrolysis, and claims great success from this mode of treatment. Dr. Bayer, of Brussels, and M. Rethi, of Vienna, agree with these conclusions.

Dr. Moure, however, dissents from these views. He gave interstitial electrolysis a fair trial, and while allowing that the immediate effects appeared very satisfactory, he found that this amelioration was but temporary. The treatment recommended by Dr. Moure is as follows: He first inquires of the patient whether he wishes to undergo a partial or regular course of treatment. If partial, the nasal cavities are first cleared by means of cotton-wool soaked in carbolic glycerin; after this the nasal and post-nasal cavities are irrigated with some antiseptic wash. If, on the contrary, the patient wishes to undergo a regular course of treatment, in the first instance the nasal cavities are douched with a solution of boric acid; when this has been continued for a few weeks, the nasal mucous membrane is massaged with antiseptic cotton-wool; nitrate of silver is then made use of; and, finally, an alkaline injection clears away any excess of nitrate of silver that may be contained in the interior of the nose. By these means it is contended that a definite cure may be obtained.

There are, however, many medical men who will prefer to try a more

heroic form of treatment for the cure of ozena than the foregoing. Dr. Mackenzie, of Edinburgh, says that ozena is a disease of the mucous membrane, and that the atrophy or shrinkage which is a characteristic of it is due to pressure of the hardened pus (crusts) upon that membrane—a condition which is somewhat analogous to that met with in the skin in certain forms of eczema. He has endeavored by curetting to supplant the diseased membrane by new tissue, and claims to have met with great success from this treatment. After curetting, he uses oily applications, such as a mixture of ichthyol and olive oil, which he finds soothing and beneficial.—*Medical Record.*

Purgatives and "Debility."

With respect to purgatives, there has not been that extreme variation in practise which has obtained with regard to some other remedies; but I think, notwithstanding, that the fashion of late years has been to neglect them *far too much*, although in one form or another they are perhaps the most universally applicable, and certainly among the most potent and most useful, remedies we possess. The abandonment of their employment is excused, one hears again and again, owing to the fear of their producing "debility."

I believe that few words in the English language have produced so much harm as this word "debility." Debility seems to be the *bête noire* of the present medical world. Men speak of it as if it were an entity instead of its being, as in fact it is, an effect—a result; and it was often to counteract this state that, a few years ago, stimulants were so widely given. It is disease which produces debility, and if these purgatives remove the morbid state, they often prove the most strengthening as well as the most health-giving of remedies. "Talk about champagne," said Byron, in one of his letters, "there is nothing which cheers your spirits up like a dose of Epsom salts." And, in a sense, he was right. Seriously speaking, sulphate of magnesia is one of the best forms of saline aperients, and the old-fashioned stock medicine of the surgery and of hospitals, the "Mistura alba," has more cures due to it than will ever be achieved by a dozen of the new-fashioned remedies which have lately inundated the advertising pages of our journals. I say that Epsom salts have gone out of vogue, but a tacit compliment is, notwithstanding, constantly being paid to them, for people still find the efficacy of the solutions which contain them, and they take our old friend in a more expensive form, under the names of Friedrichshall, Hunyadi János, and Æsculap mineral waters.

I am quite aware of the experiments by which it has been proven, or said to have been proven, that mercurials are not cholagogues. Well, I cannot discuss that matter here; but this I know, that a good dose of calomel or blue pill, given in the olden fashion, and followed by some sulphate of magnesia or other good saline purgative in the morning, will bring away copious motions of yellow, green, or black matter, such as you do not get otherwise; and one feels, after that, light and buoyant and bright, and with a head clear for work —a state such as one has not felt in, perhaps, for weeks before: the melancholy —the black bile—has been removed.—Charles J. Hare, "Good Remedies—Out of Fashion," in *The Practitioner.*

Treatment of Obesity.

Dr. Cathell reports that he has had more than ordinary success in the last few years in the treatment of obesity with what seems a very simple method. He has his patients drink after each meal a glass of artificial Kissingen water, and on the succeeding day a glass of artificial Vichy water also half an hour after each meal. This is continued week after week until the patient comes down to a normal degree of stoutness, and the waters are then discontinued. As to the mode of action taken by these waters in the manner described he is not able to state, but their efficiency is too well established to admit of doubt.

Permanganate of Potassium in Opium Poisoning.

Surgeon-Major J. D. Reckitt in the *British Medical Journal* reports a case of a man who had drunk two ounces of laudanum, and being seen too late to permit of its removal from the stomach, the entire amount having been absorbed, was given several five-grain doses of permanganate of potassium, a good recovery following.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,
Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

An Unusual Case of Genital Malformation.

Green (*Quarterly Medical Journal*, January, 1898) describes in an illustrated sketch the case of an individual aged twenty-four, who had always passed as a woman, doing duty as a housemaid, who consulted him for the relief of a feeling of weight and pain in the lower part of the abdomen. The patient was a brunette, with considerable mammary development, and the pubic hair stopped at the hypogastric fold.

On local examination the labia majora were found to be somewhat swollen, a condition which had existed as long as the patient could remember, and each labium contained an oval, movable body, the one on the right side being somewhat larger than that on the left. The clitoris appeared to be about half an inch long, and as thick as the little finger. Below this was an opening, too small to admit anything but a sound. A more careful investigation under an anesthetic revealed the fact that the labial swellings were testicles, the one on the right side about normal in size, while the opposite organ was about half size, and could be easily pushed up through the ring into the abdomen. The scrotum was completely split into halves, and the dartos was plainly evident. Of the penis only the glans was developed, the corpus spongiosum being absent. The former was imperforate at its extremity, but on the under side was a depression which resembled a meatus, which, however, would admit only the finest probe. Along the under surface of this rudimentary organ was a groove or furrow which terminated in an opening one and a half inches lower down. This furrow evidently represented the upper half of the urethra, the inferior wall being absent at this portion. A catheter passed into the opening,

which was situated just in front of the triangular ligament, traversed a urethra about two inches long. Rectal examination failed to reveal the presence of either uterus or prostate, although a thickening at the latter part gave indication of that organ. As it was considered unlawful for the patient to longer continue in female attire, and as he desired to remain a "woman," the testicles were successfully removed, and the asexual individual returned to domestic service.

Vaginal Hysterectomy at the End of Pregnancy.

Fritsch (*Centralblatt für Gynäkologie*, No. 1, 1898) reports a case of vaginal total extirpation of the uterus at term, the first of the kind yet to be recorded. The anterior lip of the cervix was occupied by a broken-down carcinomatous tumor, which extended somewhat to the right. Labor setting in and the os being dilatable, the membranes were ruptured, deep incisions made into the healthy uterine tissues, and a living child delivered by the high forceps operation. The placenta was expressed by Crédé's method. Immediately afterwards the woman was placed in the lithotomy position, the parts cleaned and disinfected, and vaginal total extirpation of the uterus successfully carried out in thirty minutes. The patient made an uninterrupted recovery and was dismissed from the hospital on the thirty-first day after operation. Fritsch concludes that the vaginal route is the proper one to select in operating in this class of cases, where the pelvis is usually sufficiently large, as the uterus can be easily drawn down and the tissues are readily differentiated. The hemorrhage is slight, no blood flowing from the uterine cavity while the organ is pulled downward and elongated. This method is also preferable to the abdominal on account of the lessened dangers from infection. Fritsch suggests that vaginal hysterectomy could be advantageously employed in cases of uterine rupture during delivery.

Mittermaier (*idem*) reports two successful extirpations of the carcinomatous puerperal uterus *per vaginam*. The first patient miscarried at the fifth month, the operation being performed on the following day. In the second case the child (seventh month) was delivered through an incision in the anterior cervical wall, and the uterus immediately removed. Both cases made uneventful recoveries.

Tuberculosis of the Tubes and Pelvic Peritoneum.

Hegar (*Deutsche Medicinische Wochenschrift*, No. 45, 1897) distinguishes two sources of origin for this condition, an ascending and a descending. In the first the infectious material enters the sexual tract from the alvine discharges of patients suffering from rectal tuberculosis, is conveyed to the parts on the fingers of the physician or midwife, or the bacilli enter with the semen of men affected with testicle-tuberculosis—a very improbable origin; in the latter form the bacilli reach the peritoneum from the intestine or caseated mesenteric glands, and are then, perhaps, carried into the mouths of the tubes by the action of the ciliated epithelium. A diagnosis of tubercular peritonitis is justifiable when nodes, varying in size from a hemp-seed to a bean or even

larger, can be felt on the posterior surface of the uterus, in the cul de sac and along the folds of Douglas, on the posterior surfaces of the broad ligaments and pelvic walls, and in the para-vaginal tissues. The possibility of the presence of sarcoma, carcinoma, metastatic papillary growths from ovarian cysts, small fibroids and isolated inflammatory thickenings of the serosa must not be lost sight of. The most positive diagnostic sign is the presence of tubercular deposits in other organs. Spontaneous cure of peritoneal and tubal tuberculosis is not infrequent, and the author cites the histories of two interesting cases of this kind. Laparotomy is indicated where the condition has existed for a considerable time with no improvement from other methods of treatment, and the abdominal route should always be selected in preference to the vaginal, since by the former the extension of the disease can be accurately determined, and the tumors removed without the escape of their contents.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M D.

Nasal Synechia.

In the *Laryngoscope* for January, 1898, Dr. W. Scheppegrell, of New Orleans, has an interesting article entitled "A Conservative Operation for the Removal of Nasal Synechia." Reviewing the origin and nature of these synechias, he shows that most of them are the result of imperfect after-treatment following operative work in the nose, in which two mucous surfaces wounded by the knife, saw or cautery are allowed to remain in apposition, with the result that a disagreeable fibrous bridge forms between the septum and one of the structures on the outer nasal wall. The choice of a means to relieve permanently this condition depends on the character and extent of the synechia. Reviewing the methods of procedure with the use of the galvano-cautery, the knife followed by trichloracetic acid cauterization, and the uncomfortable plugging with gauze to prevent apposition of wounded mucous surfaces, the author finds that in certain cases all these methods are unsatisfactory.

The author gives some very satisfactory personal experience regarding the division of the synechias by the snare and the separation of the surfaces by a thin sheet of white celluloid. By means of a flexible probe a piece of silk ligature is passed about the synechia. To this ligature is attached the snare wire, which is then led around the synechia and threaded into the ordinary snare. After division of the synechia by constriction a thin piece of sheet celluloid cut to a suitable form and size is introduced to separate the cut surfaces and allowed to remain eight to ten days. The celluloid is non-absorptive, and the only after-treatment required is the cleansing of the nostril with an antiseptic nose-wash two or three times daily. The celluloid plate is so thin that the patient soon loses the sensation the presence of a foreign body excites, and there is no interference with respiration or damming of the secretions.

The Explanation and Treatment of the Eunuch-like Voice.

At the time of puberty the voice breaks and sometimes assumes the character of the voice of a eunuch. Moreover, this condition sometimes persists. At the meeting of the Academy of Medicine on December 8 M. Kraus said that he had abandoned the explanation generally given that this voice was due to spasms or ataxic movements of the laryngeal muscles. According to him the eunuchoid voice is due to a disproportion between the vocal cords at the time of the break. This disproportion generally disappears during the course of a normal break, but sometimes it persists or only partially disappears. M. Kraus distinguishes three degrees of eunuchoid voice according to the amount of normal evolution which takes place: first, those who can only speak in the eunuchoid voice; second, those who can by making an effort speak with the chest voice, but in whom the falsetto returns when the effort ceases; and third, those who use the chest voice except when the voice is strained. M. Kraus, by means of an apparatus which he calls the "redresseur du larynx," has been enabled to correct this faulty development and has even brought about the permanent disappearance of falsetto voices which had been treated upon the old method for some years without success. The treatment consists of a kind of "orthopedy" of the larynx, and is painless. — *Indian Medical Record.*

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
Lecturer on Dermatology and Syphilology, Detroit College of Medicine.

Etiology of Zoster.

In a paper read before the Alumni Association of the Medical Department, University of California, October 5, 1897, on the etiology of zoster, Wm. G. Hay (*Journal of Cutaneous and Genito-Urinary Disease*, January, 1898) arrives at the following conclusions:

1. Among a number of zosteriform eruptions, zoster is a distinct disease that runs a definite course.

2. True zoster is of an infectious origin.

3. The herpetic eruption in genuine zoster is preceded by adenopathy in the neighborhood of the eruption and often by bilateral or even general adenopathy.

4. The eruption is in the nature of a trophic disturbance, and probably the infective agency has a selective affinity for the sympathetic ganglia; and segments of the cord, and tracts supplied from these segments, are affected rather than any individual spinal nerve.

Hay takes the classification of Grindon (St. Louis), who separates the eruptions due to the following causes from true zoster and styles them zosteroids:

1. Chronic peripheral irritation.

2. Traumatism: (*a*) central; (*b*) in continuity; (*c*) peripheral; (*d*) reflex.

3. Pressure on a nerve trunk (osteophytes, infiltration of surrounding tissues, pleuritic adhesions).

4. Infiltration of a nerve or ganglion by some neoplasm, or a simple (in this regard) non specific inflammation.

5. The presence in the blood of some irritating substance, such as lactic or uric acid (arthritisme).

Grindon adds the interesting fact that zosteroids of frequent recurrence remain limited to their original site or to corresponding opposite region, and that recurring zosteroids, due to traumatism or to continuous peripheral irritation, remain limited to one site.

In support of the idea of its contagiousness Hay argues, among other things, that while the disease may be sporadic, it frequently appears in epidemics, which in America generally occur in the autumn or spring; that it is endemic in certain regions, being in proportion to the population more common in the valleys than in the mountains of California; that the cause of the disease is precisely similar to that of the infectious exanthemata; that one attack seems to confer a degree of immunity; and that a number of cases have been collected by various writers in which the disease appeared in the members of one family in quick succession.

Hay claims that there is, at least in the majority of cases, an enlargement of the lymphatic nodes in the neighborhood of the eruption, a fact apparently not well recognized, and cites ten cases that recently came under his observation, though it was impossible to prove that the enlargement of the glands preceded the eruption in every case. Why the infection should confine its manifestations to one ganglion or nerve tract he does not attempt to explain. In zosteriform eruptions, he states, the most frequent anatomical findings have been those of peripheral neuritis.

Common Diseases of the Skin and Contagion in Schoolchildren.

Dr. T. Caspar Gilchrist, in a paper read at the annual meeting of the Medical and Chirurgical Faculty of Maryland, entitled "Common Contagious Diseases of the Skin, as met with in Schoolchildren, and How to Prevent Them," says it is of the utmost importance that far more attention should be paid to the diagnosis and treatment of ringworm of the scalp, and especially to the condition characterized by scaly dandruff patches. Any child, indeed, who is found to have a scaly or pustular affection of the scalp or face should not be allowed to attend a public school unless he can show a written certificate from a physician stating that the disease is of a non-contagious character. Physicians should not be too ready to diagnose as eczema a disease of the scalp which is secondary to parasitic infection, and should never pronounce a case of ringworm of the scalp cured until a very thorough examination has been made for stubby hairs once a week for three weeks after treatment has been stopped. He thinks it is desirable that all teachers in our public schools should be instructed to keep away children who have any bald patches or any scaly or scabby condition of the scalp or face, or, in fact, any skin affection, until they have received a doctor's certificate that the disease is non-contagious.

THE MEDICAL AGE

VOL. XVI. DETROIT, FEBRUARY 25, 1898. No. 4.

ORIGINAL CONTRIBUTIONS.

ACUTE INFLAMMATION IN THE MAXILLARY SINUS.

BY WADSWORTH WARREN, M.D., DETROIT, MICH.

Acute involvement of the antrum of Highmore, less than empyema, deserves some consideration in connection with hypertrophic conditions in the nose, because of the annoyance to which it gives rise, and on account of its causing, through frequently recurring attacks, a chronic inflammation and thickening in the sinus, and the possible origin of an empyema. In Hajek's ambulatorium in Vienna the comparative frequency of empyema of the various accessory sinuses is approximately as follows: For 200 cases of empyema of the maxillary sinus there are about twenty ethmoid empyemas, eight frontal sinus empyemas, and four of the sphenoidal sinus. It may be seen from this that the vast majority of all affections of the accessory cavities of the nose involve the maxillary rather than the frontal, ethmoid or sphenoid cavities. From this it is reasonable to infer that the acute involvements of mucous surfaces, less than empyema, and which subside often spontaneously and under appropriate treatment do not recur, involve the maxillary sinus much more commonly than other cavities.

In a long series of post-mortem examinations by Zuckerkandl in cases in which chronic nasal catarrh existed without any history of accessory cavity empyema, that author found in a large number of cases very decided pathologic changes in the mucous lining of the antrum, and very rarely slight changes in the other cavities.

There is an anatomical reason why inflammation in the maxillary sinus is much more common than in the frontal sinus or anterior ethmoid cells. As seen in the cut (Fig. 1) the opening from the middle meatus into the antrum lies at the bottom of the hiatus semilunaris and is directed downward and forward, while the opening into the frontal sinus and ethmoid cells is at the upper part of the hiatus and directed upward and forward. Again, in the case of the antrum, the opening into the nose lies in the upper part, close up beneath the floor of the orbit, not facilitating free drainage, while the opening from the other sinuses lies near the bottom of those cavities and permits good drainage except when the passage is obstructed.

Fig. 1, prepared from an anatomical specimen in the writer's collection, is a longitudinal section through the left naris close to the septum, and shows the outer wall of the left nasal cavity. The middle turbinate which overhung the hiatus semilunaris has been entirely removed. A bristle is passed into the antrum through the ostium maxillaræ, which opening occupies the normal position at the lower end of the hiatus. At the upper end of the hiatus is a small opening not shown in the cut, leading to the anterior ethmoidal cells and the frontal sinus. In preparing the specimen the saw has opened the frontal and sphenoidal cavities. The mouth of the Eustachian tube is shown just behind and on a level with the posterior extremity of the inferior turbinate. The bristle entering the antrum is directed downward and slightly forward and enters the top of the cavity just beneath the floor of the orbit.

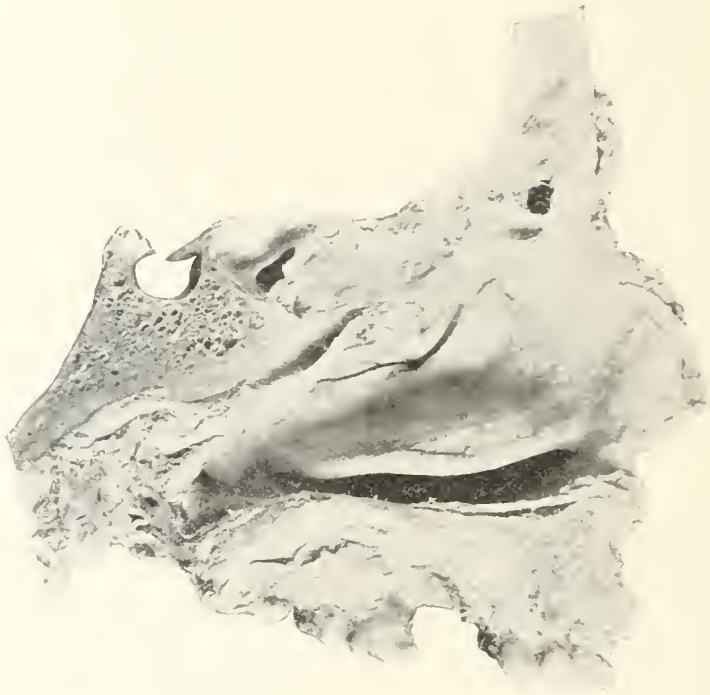


Fig. 1.

Fig. 2 is reproduced from Zuckerkandl's Normal und Pathologische Anatomie der Nasenhöhle. It is a transverse section of the right side, showing the septum, the right nasal cavity, and the antrum. The specimen that furnished the illustration was from a case in which existed an acute rhinitis with involvement of the antrum. Within the antrum are seen large tumefactions resembling cysts, which in reality are only swellings of the mucous membrane caused by the acute inflammation and infiltration. The secretion in such a case is muco-serous and not purulent.

The following cases may serve to illustrate the symptoms produced by and the means of relieving this condition:

Case 1.—Male, aged thirty-one. Septum strongly deflected to the right side with a long bony ridge on the convexity. Right middle turbinate hypertrophied and in apposition with the ridge. Patient subject to repeated attacks of acute rhinitis. While diving in about ten feet of water he struck the soft bottom, and both nostrils were partially filled with mud. Within a few hours another severe attack of rhinitis occurred, which in addition to the ordinary symptoms was accompanied by pain on the right side of the face, slight bogginess and edema of the right lower eyelid, and tenderness to pressure in several of the right upper teeth. Patient complained that these teeth felt longer than the others. Three days after the beginning of the attack and at the time the intranasal swelling usually decreased, there was a profuse, clear, yellow serous discharge from the right naris. The discharge occurred when the head was bent forward or to the left, and ceased when the head was held erect. After about ten days of palliative treatment it ceased entirely. The spur was then removed with the saw, and the anterior portion of the middle turbinate lightly cauterized. In the year that has elapsed since the operation there has been no recurrence of the unilateral discharge.

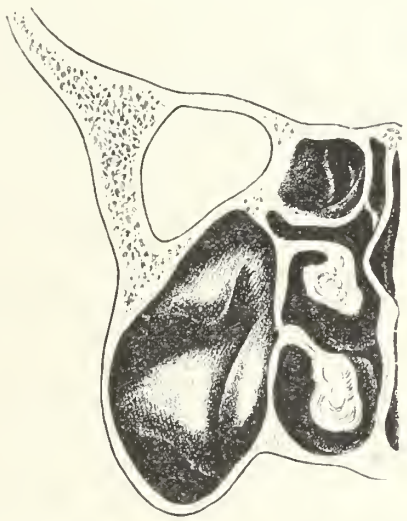


FIG. 2.

Case 2.—Female, aged eighteen. Chronic hypertrophic rhinitis. Patient complained of an unnatural discharge from the right nostril. There were slight hypertrophies along both turbinates on the right side. In the right naris the lower turbinate was hypertrophied throughout its extent. The anterior portion of the middle turbinate was hypertrophied. After cleaning out both nares, applying a four-per-cent. cocaine solution to the middle turbinate, and waiting a few moments, having the patient's head bent forward, an unnatural flaky, odorless, muco purulent discharge appeared under the edge of the middle turbinate. The course of the irritating discharge could be traced posteriorly on the right side of the pharynx, where it had set up secondary inflammation and thickening. In this case I removed the anterior tumefied portion of the middle

turbinate with the cold snare and etched the wounded surface with trichloracetic acid. After this treatment it was possible to see with good light the lower part of the hiatus similunaris. With the use for a few weeks of a mild antiseptic spray the discharge from the sinus ceased entirely, and the secondary trouble in the pharynx disappeared. Nine months afterward there had been no recurrence of this discharge from the sinus.

Case 3.—Female, thirty-five years of age; gave a history of an injury four years ago to the anterior wall of the right maxillary sinus. It had been four or five months in healing, and the site of the injury was marked by a depression and cicatrix. I could get no history of dead bone and there was no fistula. Examination of the nose showed an immense fibrous hypertrophy of anterior extremity of the right middle turbinate, beneath which several small mucous polypi protruded. After removing with the snare the anterior extremity of the middle turbinate and the larger polypi, the mucous surface about the hiatus was cauterized quite extensively. Following the operative measures the patient used an alkaline spray for a few weeks.

In this case also there was a definite history of an unnatural discharge from the right nostril, influenced by position of the head, and evidently as a result of this muco-purulent discharge a secondary inflammation of the pharynx confined chiefly to the right side. Six months before I saw this patient she had an acute right otitis media with rupture of the drum and considerable subsequent discharge, from which under appropriate treatment she had recovered at the time she came under my care, though there remained slight thickening of the drum and partial occlusion of the Eustachian tube. After correcting the local condition in the nose, daily dilatation of the Eustachian tube with the compressed air apparatus for a few weeks comp'etely restored the function of the right ear. During the six months subsequent to this treatment there has been no recurrence of the discharge from the sinus, nor of the polypi. The patient, further, has practically perfect audition in the right ear and no pain or discomfort.

In this last case the middle-ear catarrh was undoubtedly secondary to and directly caused by the entrance into the tubal orifice of some of the mucopurulent discharge from the inflamed maxillary sinus. When recumbent in bed the secretion would naturally flow over the mouth of the tube.

With some diffidence, owing to the scant attention paid to this subject in our usual text-books, I submit, in conclusion, the following propositions derived from a study of these and other similar cases:

1. That the condition described, an acute involvement of the maxillary sinus, less than empyema, is a definite pathologic condition, of not very rare occurrence.

2. That it may be recognized by the unnatural unilateral discharge influenced by the position of the patient's head, by the local symptoms, and the secondary inflammation and thickening caused by the discharge.

3. That it is accompanied by (probably as a causal factor) some partial obstruction to the ostium maxillaræ, and is relieved when this obstruction is permanently removed.

A YEAR'S EXPERIENCE IN THE TREATMENT OF LARYNGEAL DIPHTHERIA WITH ANTITOXIN AND INTUBATION.*

BY CHARLES GODWIN JENNINGS, M.D,

Professor Practise of Medicine and Clinical Diseases of Children, Detroit College of Medicine.

A year ago I presented to the society a report of a few cases of laryngeal diphtheria treated with antitoxin and intubation, with a brief *résumé* of the experience of other operators, showing the remarkable change in the mortality-rate of this disease that came with the introduction of antitoxin. Since that time laryngeal diphtheria has prevailed in this city and the neighboring towns to an unprecedented extent, and abundant opportunity has been given to add evidence of the value of the serum treatment.

The reports of various observers in this country and abroad have been, perhaps, sufficiently conclusive. The society may, however, be interested in the local evidence. As all cases of croup that have come under my observation during the last two years have been seen in consultation, an opportunity to estimate the attitude of the rank and file of the profession toward the use of antitoxin has been afforded. It must be confessed that antitoxin is still looked upon with suspicion and distrust by many. Whenever I have had an opportunity to show its value, distrust has given place to confidence, and if the presentation of these cases will do a little more missionary work, I shall be satisfied.

In the tables here appended are enumerated the cases seen during the last year:

NON OPERATIVE CASES — RECOVERED.

Case.	Attending physician.	Age of patient	Duration of disease before invasion of larynx.	Duration of disease before first administration of antitoxin.	Number of doses of antitoxin.	Dose of each injection in units.	Intervals between injections.	Distribution of membrane.
1	Dr. Valade (Newport).....	4 years.	.....	4 days.	2	1500 500	24 hours.	Pharynx and larynx.
2	Dr. Campbell.....	3 years.	.....	.....	3	..	.....	Severe pharyngeal exudate.
3	Dr. Clark.....	4 years.	.....	3 days.	2	1000 1500	24 hours.	Pharynx, uvual, larynx.
4	Dr. E. B. Smith.....	5 years.	.....	.....	2	1500 1000	24 hours.	Pharynx and larynx.
5	Dr. Sicklur	16 years.	.....	.....	3	1500 1500 1500	.....	Pharynx (severe), larynx.
6	Dr. L. (Mt. Clemens).....	3 years.	.....	3 days.	2	1000 1000	24 hours.	Pharynx and larynx.
7	Dr. Samson (Windsor).....	6 years.	.....	2 days.	2	1000 1500	.....	Pharynx and larynx.
8	Dr. Beisman.....	7 years 6 mon's.	4 days.	5 days.	1	1500	.....	Larynx.

* Read before the Detroit Medical and Library Association.

OPERATIVE CASES.—RECOVERED.

Case.	Attending physician.	Age of patient.	Duration of disease before invasion of larynx.	Duration of disease before first administration of antitoxin.	Number of doses of antitoxin.	Dose of each injection in units.	Interval between injections.	Distribution of membrane.	Number of days tube remained in larynx.	Interval between first injection and intubation.	Complications and sequelæ.
1	Dr. Arthur Bennett..	6 years.	Primary	3 days.	2	1000 1000	24 hrs.	Pharynx, larynx.	5	None.	
2	Drs. Clark and Bennett.....	6 years.	Primary	3 days.	1	1000	....	Pharynx, larynx.	5	6 honrs.	
3	Dr. G. H. Sherman..	5 years.	6 days.	2 days.	2	1000 1500	4 days.	Nose, pharynx, larynx.	6	4 days.	
4	Dr. McHugh.....	6 years.	Primary	5 days.	3	1500 1500 1500	24 hrs. 24 hrs.	Tonsils, larynx.	5	None	
5	Dr. McEachran.....	2 years 11 mon's	Primary	1 day.	3	600 1000 1000	12 hrs. 24 hrs.	Larynx.	5	12 hrs.	Broncho-pneumonia.
6	Dr Dewar. ..... (Windsor.)	3 years 8 mon's	Primary	7 days.	2	1000 500	24 hrs.	Larynx.	4	None.	
7	Dr. Reaume..... (Windsor.)	5 years.	Primary	5 days.	2	1500 500	24 hrs	Larynx.	4	None.	
8	Dr. McHugh.....	6 years.	9 days.	9 days.	3	1500 1500 500	24 hrs. 24 hrs.	Tonsils, larynx.	3*	24 hrs.	.....
9	Dr. Reaume. ..... (Windsor).	3 years 6 mon's.	Primary	2 days.	2	1500 1500	24 hrs.	Larynx.	5	None.	.....
10	Drs. Newman and McPherson	3 years 9 mon's.	Primary	2 days.	2	1000 1500	24 hrs.	Larynx.	5	12 hrs.	.....
11	Dr. Reaume ..... (Windsor).	3 years 2 mon's.	Primary	4 days.	3	1500 500 500	24 hrs. 24 hrs.	Larynx.	4	None.	.....
12	Dr. McPherson.....	7 years 8 mon's.	Primary	2 days.	2	1500 1500	2 days.	Larynx.	2*	2 days.	.....
13	Dr. Crnikshank..... (Windsor).	1 year 9 mon's.	Primary	3 days.	2	1000 1000	24 hrs.	Larynx.	3½*	None.	.....
14	Dr. LeBlanc	2 years 11 mon's	3 days.	4 days.	2	1500 1500	5 days.	Pharynx, larynx, nose.	4	4 days.	.....
15	Dr. Wilson ..... (Mt. Clemens).	11 years.	7 days.	8 days.	3	1500 700 1500	12 hrs 24 hrs.	Nose, pharynx, larynx.	3	None.	Broncho-pneumonia.
16	Dr. Coventry ..... (Windsor).	6 years.	Primary	2 days.	1	1000	.....	Larynx.	4	None.	.....
17	Dr. Dalrymple.....	3 years 4 mon's.	Primary	1 day.	2	1000 1000	24 hrs.	Larynx.	4	None.	.....
18	Dr. Henry.....	1 year 11 mon's	Primary	2 days.	1	1000	....	Larynx.	4	None.	.....
19	Dr. Clippert..... ..	3 years 11 mon's	Primary	2 days.	2	1000 1000	24 hrs.	Larynx.	4	None.	.....
20	Dr. Codey	8 years.	5 days.	2 days.	3	1000 1500 1500	4 days. 1 day.	Larynx, pharynx.	1½*	4 days.	.....
21	Dr. Mnlheron.....	2 years 1 month.	2 days.	3 days.	2	750 1000	12 hrs.	Pharynx. larynx.	4⅓	None.	Antitoxin rash and fever.

* Coughed out.

OPERATIVE CASES.—RECOVERED.—CONTINUED.

Case.	Attending physician.	Age of patient.	Duration of disease before invasion of larynx.	Duration of disease before first administration of antitoxin.	Number of doses of antitoxin.	Dose of each injection in units.	Intervals between injections.	Distribution of membrane.	Number of days tube remained in larynx.	Interval between first injection and intubation.	Complications and sequelæ.
22	Dr. Mulheron.....	5 years.	2 days.	4 days.	1	1500	....	Pharynx, tonsils, larynx.	4	None.	.....
23	Dr. Frazer.....	6 years.	....	....	2	1000 1000	24 hrs.	Pharynx, larynx.	4	None.	.....
24	Dr. Gillett.....	14 years.	3 days.	4 days.	2	1000 1500	24 hrs.	Naso phar. pharynx, larynx.	2*	None.	.....
25	Dr. Jacob	4 years.	12 days.	2 weeks	2	1500 1500	24 hrs.	Nose, pharynx, larynx.	4½	None.	.....
26	Dr. Winters.....	18 mon's	Primary	2 days.	2	1000 1000	24 hrs.	Larynx.	7	None.	Broncho-pneumonia.
27	Dr. Davis....	4 years.	2 days.	3 days.	2	2000 1500	24 hrs.	Pharynx, larynx.	4	None.	.....
28	Dr. Hare,..... (Walkerville).	5 years.	....	...	2	1000 1000	36 hrs.	Pharynx, larynx.	4	None.	Broncho-pneumonia.
29	Dr. Winters.. ...	5 years.	....	....	2	1500 1500	24 hrs.	Larynx.	4	None.	.....

OPERATIVE CASES.—DIED.

Case	Attending physician.	Age of patient.	Duration of disease before invasion of larynx.	Duration of disease before first administration of antitoxin.	Number of doses of antitoxin.	Dose of each injection in units.	Intervals between injections.	Distribution of membrane.	Interval between first injection and operation.	Interval between operation and death	Cause of death.
1	Dr. D. L. Parker	5 years	.....	....	1	1500	....	Larynx.	3 hrs	No.	Accident of operation.
2	Dr. Cruikshank..... (Windsor.)	2 years 3 mos.	.....	1 day.	2	1500 1000	24 hrs.	Larynx.	None.	36 hrs	Extension of membrane.
3	Dr. Utter.....	11 mos.	....	.. .	1	500	....		None	24 hrs	Broncho-pneumonia.
4	Dr. Palmer.....	14 years.	.....	....	1	1500	....	Pharyux, larynx.	None	18 hrs	Exhaustion.
5	Dr. Ketchum.....	4 years.	.....	....	1	1500	....	Larynx.	None.	3days	Broncho-pneumonia.
6	Dr. McPherson.....	5 years.	.....	....	1	1000	....	Pharynx, larynx.	None.	3 hrs.	Plugging of tube.

Summary.—Total number of cases treated by antitoxin or intubation, or both, 43; of this number 6 died and 37 recovered. Number of cases treated by antitoxin, without operation, 8, all of which recovered. Number of cases operated upon 35, with 29 recoveries and 6 deaths.

Fatal Cases.—It will be well first to analyze the fatal cases:

Case 1.—Case seen by Dr. Parker 10 A.M., November 18. Given 1500 units

of antitoxin at 11 A.M. Moribund at 3 P.M. Attempt at intubation at 3 P.M. Thread of tube caught on button of assistant's coat, causing failure to lodge the tube in the larynx. Death of child. Rapid tracheotomy. Failure to resuscitate. This case died four hours after the injection of antitoxin. The death cannot be charged against the remedy, as an earlier injection and operation would have saved the child.

Case 2.—Aged two years and three months. Died of pneumonia thirty-six hours after intubation.

Case 3.—Aged eleven months. This was a case of severe laryngeal, tracheal and bronchial catarrh. There was no clinical evidence of membrane, and culture was negative. Antitoxin and intubation as a forlorn hope. In the absence of every evidence of Klebs-Loeffler infection, this case should not be charged to antitoxin.

Case 4.—A girl fourteen years of age. When I saw her she was moribund. She had suffered with grave stenosis for two or three days, and she had been exhausted by repeated attempts at intubation by an incompetent operator. Antitoxin was not given until after operation, and only a few hours before she died. Intubation gave perfect relief to respiration, but she sank and died of pulmonary engorgement twelve hours after. A reasonably early operation and injection would almost certainly have saved her life.

Case 5.—Aged four. Died of bronchopneumonia three days after operation.

Case 6.—Aged five years. At the time of intubation the trachea and bronchi were filled with tough membrane, and three or four introductions of the tube were necessary before enough was dislodged to permit of free respiration. Three hours after the intubation and injection a piece of membrane loosened from below plugged the tube and killed the child in a few moments.

Of the six fatal cases, then, but two, Nos. 2 and 5, were treated sufficiently early to justify their inclusion in an estimate of the value of antitoxin.

Eliminating, as I believe we justly can, the other four cases, the results would be: Thirty-nine cases with two deaths; thirty-one intubations with two deaths. Such results need no comment. To those who know from many sad experiences the terrible fatality of diphtheritic laryngitis before the days of antitoxin, both with and without operation, they seem almost miraculous.

These results are not exceptional, as the reports of a number of operators show, and it is remarkable that physicians who meet diphtheritic croup hesitate so to use the only remedy that can influence the progress of the disease.

Of these forty-three cases treated by antitoxin, only fourteen received the serum before I saw them in consultation. From my conversation at consultations I find that there are two chief reasons for hesitancy: (1) uncertainty in diagnosis, and (2) fear of untoward action of the remedy.

The diagnosis of laryngeal obstruction caused by membranous laryngitis is usually correctly made; the question of doubt appears to be whether or not the disease is diphtheria. The old chimera, *membranous croup*, is hard to down. The clear-cut pathological fact that pulmonary membranous laryngitis is almost without exception Klebs-Loeffler infection finds a tardy acceptance in most medical minds. That the streptococcus or other organism may and occasionally does excite a laryngeal pseudo-membranous inflammation is true;

still, it is exceptional, and so far as the immediate treatment of the case is concerned, of no importance. In cases of doubt the rule of action should be, *give the antitoxin and settle the question of diagnosis afterwards.*

The extensive use of antitoxin and the rarity of accident attributable to it are rapidly overcoming the fear of the remedy that was aroused by a few unfortunate cases early in the history of serum therapeutics, and which has been fostered by the virulent opposition of a few irresponsible editors who know nothing of diphtheria, and who probably never saw a case of croup.

Still I find that physicians often hesitate and delay because of the fear of adding a new danger to the one already manifest. In one case I saw an able physician carry to a croup patient a bottle of antitoxin with every visit for two or three days, and then did not use it until bolstered up by consultation.

A glance at this report shows how groundless are such fears. But one case showed any toxic effect; this was an erythema and mild febrile disturbance lasting about a week.

Antitoxin. — Except in Cases 1 and 2, Parke, Davis & Co.'s antitoxin was used.

The Dose.—When I find antitoxin has been given it is usually in insufficient doses. Although I myself have not given the large dose recommended in the report of the American Pediatric Society, and although the results obtained by the smaller dose are all one could expect, I believe I have been in error in not administering the maximum dose at the beginning. I am convinced by the experience of others, and particularly by that of my colleague, Dr. B. R. Shurly, that a full dose given early will save many cases from the necessity of operation.

For children under two years 1500 units, repeated in twelve, twenty-four or thirty-six hours, should be given. A third or fourth dose may be given, if necessary. For children over two years, 2000 units, repeated in the same manner. *When in doubt use the large dose.*

Course of the Disease after Intubation.—The report shows the infrequency and the mildness of the complications and sequelæ in croup cases treated with antitoxin. In one case only out of the series did the serum fail immediately to arrest the extension of membrane. Convalescence is rapid and perfect. The tube can usually be removed at the end of the fourth day; before antitoxin it was necessary to keep it in for six or seven days.

Laryngeal invasion most frequently characterizes diphtheria of a mild type, and particularly in cases in which the exudate is confined to the pharynx.

Early injection of antitoxin checks extension to the larynx. To prevent and arrest laryngeal diphtheria the rules of action should be: Administer antitoxin at the earliest possible moment to every case of diphtheria, however mild. Immediately on the appearance of hoarseness and aphonia, the indications of laryngeal invasion, push the drug to the maximum limit.

In every case of doubt give antitoxin.

The operation of intubation should be only in the hands of the expert. The general practitioner, however, can make the services of an expert rarely necessary if he will treat his diphtheria cases by the early and vigorous administration of antitoxin.

IN MEDICAL CONCLAVE.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

At the regular weekly meeting held Monday, February 7, the paper of the evening was read by Dr. D. L. Walmsley, entitled "Injury of the Brain Followed Five Years Subsequently by Epileptoids and Mania, Trephining, and Recovery." The Doctor illustrated his text by reporting a case which had come under his care many years ago, being that of a boy aged nine years who had been kicked by a horse, the seat of injury being over the frontal eminence a trifle to the left of the median line. Associated with the case were a number of interesting features — local injury, shock to the nervous system, laceration of the coverings of the brain and brain substance with loss of cerebral nature, an uninterrupted recovery from the original injury followed by epileptoids and mania, trephining, and restoration to perfect health of body and mind. The secondary operation of trephining showed that a sharp-pointed, cone-shaped piece of bone had grown from the bone which had been depressed at the time of the original injury. According to the Doctor's conclusions, irritation of the cerebral cortex from this projecting piece of bone produced epileptoid convulsions, probably by reflection of the irritation to the epileptic center in the medulla.

Many of the nerve centers are pretty definitely located. In the corpus striatum is located the heat center, that for epilepsy in the medulla oblongata. The Doctor at this point enumerated the various centers in the brain, and the disturbances which follow lesions of the same; the main peculiarity in the case under consideration being the seat of cortical lesion. So far as he was aware the frontal cortical region had never been accredited with any nerve centers.

In conclusion, the Doctor said that while he knew he was approaching dangerous ground, he believed it would be a benefit to humanity and to medical science were it lawful for doomed criminals to be made subjects of scientific research and vivisection.

At the meeting held January 31, Dr. H. O. Walker read the paper of the evening, entitled "Gastrectomy." The Doctor said that since the report of the complete excision of the stomach by Dr. Carl Schlatter, surgical investigation had been stimulated throughout the world with a view of determining within what limits a successful operation could be performed for removal of the diseased organ. The essayist gave an extended description of the location and anatomical relations of the stomach in connection with adjacent organs, and the extensive blood-supply which must necessarily be controlled in undertaking an operation. By way of experimental investigation he reported the results of a series of twelve cases of gastrectomy which he had performed on dogs. In every case death occurred within periods varying from three to forty-eight hours. The technique of the operation was fully described. Post-mortem examination showed that while union was progressing satisfactorily at

the esophago-duodenal attachment, varying quantities of blood were found in the abdominal cavity which were undoubtedly the cause of death in each case. The strictest antiseptic precautions were taken, and there were no evidences of septic infection as a result of the operation. Experience led him to the conclusion that an operation for the removal of the stomach for cancer is one of great magnitude in the human being, and where the disease has advanced to a late stage should be undertaken with a great deal of hesitancy. If we were able to recognize the condition in its early stage, it is possible that an immediate operation might prove successful.

DETROIT ACADEMY OF MEDICINE.

At the meeting held February 8 at the residence of Dr. W. P. Manton, the Academy listened to a paper by Dr. W. P. Manton, entitled "Two Obstetric Lesions." The paper was an unusually practical one, and while the author did not attempt to bring up anything new about lacerations of the cervix and perineum, he insisted upon the more careful observation by the accoucheur of the rules now so carefully laid down in all books of midwifery. Every primiparous woman gets a more or less extensive laceration of the cervix, the extent of which is dependent upon the skill of the obstetrician, and the haste with which delivery occurs. The greater number of these tears will heal spontaneously during the puerperium, provided the accouchement has been an aseptic one, and the patient is kept in bed long enough to allow firm union of the torn lips. The routine practise of keeping a patient in bed for ten days is not always good, since many patients with extensive laceration require a much longer time. Repair of the cervix should not be undertaken until at least one month has gone by. Lacerations of the perineum likewise are very common and should receive immediate attention. All cases in which the tear involves fibers of the levator ani muscle or the fascia, or both, should be sutured.

The discussion which followed was spirited and brought up among other things the question of the influence of lacerations in the mental troubles of women. The speaker of the evening declared that in twelve years of gynecological practise among the insane, he had never seen a case of insanity which he regarded as caused by pelvic trouble.

Vigorous resolutions sustaining the demand made by the faculty of the University of Michigan in regard to the exclusion of rich patients from the hospital were passed unanimously by the large meeting.

WAYNE COUNTY MEDICAL SOCIETY.

The society met in regular session Thursday, February 3. A resolution was passed calling upon the regents of the University of Michigan to take action in the matter of gratuitous treatment of well-to-do patients at the University Hospital.

Dr. R. Hislop read a paper entitled "Special Treatment of Diseases of the Rectum." In introducing the subject the writer asserted that diseases of

the rectum had received less attention from the medical profession than their importance merits. Because of this neglect errors in diagnosis are very frequent. The writer then took up the two most important diseases which affect the rectum and anus, namely, hemorrhage from the rectum and pruritus ani. The causes, symptoms and treatment of these were fully discussed. The general discussion which followed brought out some interesting and important points.

Typhoid fever and its treatment by the administration of acids formed the subject for discussion at the meeting on Thursday evening, February 10. Dr. J. A. Beall advocated the acid treatment and supported his theory by argument and example. He likened typhoid fever to a great tree whose spreading branches represent the varied symptoms of the disease, fever being one. "It is a mistake," he said, "to undertake the destruction of a tree by cutting off one branch; it is just as much of a mistake to try to cure typhoid fever by lopping off the one branch—increased temperature." The usefulness of an acid, preferably dilute hydrochloric or phosphoric, consists in its power of eliminating morbid material from the system by stimulating the various glands of the body to increased activity. The author commended the use of other agencies, such as cool bathing and sponging when high temperature exists, but he said that in his own practise he found the use of hydrochloric acid had proved most efficient, lowering temperature, improving the pulse, clearing the tongue, and quieting nervousness and delirium satisfactorily. The general discussion which followed was spirited and instructive.

THE NORTHEASTERN DISTRICT MEDICAL ASSOCIATION.

This society, the oldest of continuous existence in the State, held its forty-sixth annual meeting in Flint on February 4. Dr. Elizabeth M. Farrand, retiring president, read an interesting address on "Our Society and its History." In this it was stated that the records of the society had been preserved since 1856, and that meetings had been held each year with but one or two exceptions. Of the pioneer members of the society six are still living: Dr. C. M. Stockwell, Port Huron; Dr. P. A. Knight, Utica; Dr. D. H. Cole, Memphis; Dr. C. Earl, Pontiac; Dr. J. M. Taggart, formerly of Memphis; and Dr. John I. Caulkins, of Thornville. On the recommendation of Dr. Farrand these were made life members. The district comprising the society is the counties of Macomb, St. Clair, Oakland, Lapeer, Sanilac, and Genesee—Genesee having been taken into the district one year ago.

The resignation of Dr. A. L. Abbott, late secretary of the society, who had removed from the district, was received. On motion, he was elected an honorary member, and a vote of thanks was given for his long and efficient services.

The society by unanimous vote passed a resolution protesting against the free treatment of well to-do people in the University Hospital.

A committee consisting of Dr. J. C. Willson and Dr. C. B. Burr was appointed to prepare resolutions of respect to the memory of the late Dr. Luke N. Beagle, of Flint.

The following papers were read: "Tachycardia, Associated with Insanity," by C. B. Burr, M.D., Flint; "Some Points in Mental Disorders of Special Interest to Examiners," by E. A. Christian, Pontiac; "Blood-letting as a Therapeutic Agent," by B. Cogshall, M.D., Flint; "A Case of Jacksonian Epilepsy," by E. D. Rice, M.D., Flint.

At the close of the afternoon session the society was entertained at Oak Grove Hospital, where a demonstration of the *x*-rays was made by Drs. E. R. Campbell and H. R. Niles. The following officers were elected: President, Dr. Hugh McColl, Lapeer; Vice-President, Dr. C. B. Burr, Flint; Secretary-Treasurer, Dr. Sarah E. Connors, Port Huron.

The University Clinic.—The medical societies of Michigan have for the most part united in expressing their opinion on hospital affairs at the University by adopting the following resolutions: Whereas the Medical Faculty of the University of Michigan has requested the Board of Regents to authorize the Superintendent of the University Hospital to exclude from that hospital those who are abundantly able to pay for medical and surgical services; and whereas, it is unjust to the taxpayers of the State to maintain an institution in which wealthy people receive gratuitous treatment paid for by general taxation; and whereas such gratuitous treatment of the rich is degrading to the recipient and unjust to the worthy poor in need of all the charity the State is able to bestow; and whereas no person able to pay can be admitted to insane asylums or other public institutions free of charge; and whereas, this being an unjust attitude for any public institution to assume, and as such action on the part of the University of Michigan would deprive it of the public esteem in which it is held; therefore, be it resolved that in the opinion of this association the request of the Medical Faculty, as expressed above, should be complied with by the Board of Regents.

Dr. Baker, Secretary of the State Board of Health, criticizes a report of some remarks made by Dr. Duffield at a meeting of Detroit physicians, reported in No. 1 of The Medical Age for this year, to the effect that tuberculosis, by an order of the State Board of Health, had already been placed in the same category with smallpox, diphtheria, and such diseases. Dr. Baker desires equal prominence given to the statement "that the State Board of Health has never placed tuberculosis in the same category with smallpox, diphtheria, and such diseases, so far as relates to placarding of premises and isolation of patients."

The fourth annual meeting of the American Laryngological, Rhinological and Otological Society will be held in Pittsburg, Pa., on May 11 and 12, 1898, under the presidency of Dr. W. H. Daly, of that city. This is the general meeting of the whole society. The Southern Section of this society will convene in Atlanta on March 28, 1898, under the leadership of its chairman, Dr. A. W. Calhoun.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

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Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

TO WHOM SHALL FREE CLINICS BE FREE.

The Regents of the University of Michigan are confronted with a problem of some difficulty. They are called upon to decide as to who is entitled to free treatment at a free clinic. As an important part of the body politic, they are to say whether what is known in medical circles as the hospital abuse or the dispensary evil is to be officially condoned and sanctioned. Their decision will establish a precedent of far-reaching significance.

For a long period of years it has been known that well-to-do people have been availing themselves of the free medical and surgical services provided at the University Clinic. In justification of this there have been two pleas: One that the department of medicine and surgery must be provided with illustrative cases for the purposes of instruction; the other that as the University is supported by public taxation, it would be an invidious distinction between citizens to discriminate as to who shall participate in its privileges.

It might be conceded possibly that the necessity of providing clinical instruction could at times justify a certain latitude of action. If an old miser presented himself at the clinic with a well-marked case of actinomycosis, few enthusiastic teachers could resist the temptation of utilizing him for clinical and didactic purposes. While it is difficult to confer discretionary powers without the certainty of their ultimate abuse, in certain exceptional cases some freedom of action might be allowed. These unusual cases should, however, always form the basis of exceptional action on the part of the Regents. As a constant policy it cannot be too rigidly insisted upon that the needful qualification for gratuitous treatment is poverty. The poor can supply for teaching purposes all essential clinical material. The state of things must cease whereby it is easier for a rich man to enter a free clinic than to go to a high-priced specialist.

As for that Boston tea-party doctrine, that there shall be no taxation without representation, it does not apply. The purposes of general taxation include the provision of certain institutions for the use of those who possess certain definite qualifications. If a man be a thief, he has the needed qualification for the penitentiary. If a man be insane, he has the needed qualifica-

tion for asylum treatment. If a man be destitute, he is clothed and fed at a workhouse at public expense. If he be poor and sick, he can rely upon abundant charity from benevolent institutions, or he can seek the State hospital, but he must first have his primary qualifications of sickness and poverty.

The question of hospital abuse unfortunately is one not restricted to our State institutions. That the poor should be treated without accepting from them, in turn, a contribution to medical education, is humiliating and unreasonable. The *quid pro quo* is a conservator of self-respect. In more than one large hospital in our city the poor receive gratuitous treatment, no return being demanded from the recipient. Nevertheless, on no other terms should free treatment be given.

The Regents in the present issue have one duty clearly before them: To avoid a decision conceived in a spirit of spurious altruism, which would teach that the abrogation of justice is mercy; to remember that to help those who can help themselves fosters a weak spirit of dependence, enfeebles character, and poisons the wellspring of individual life; to recall that the needs of clinical instruction can be amply fulfilled by an abiding confidence in that hitherto incontrovertible dictum, "The poor ye have always with you."

EDITORIAL NOTES.

A New Operation.

In such cases as those in which an inevitable necessity exists for securing artificial sterility, a new operation designed to prevent conception has been devised by Professor Kehrer, of Heidelberg. The operation appearing to be less severe than castration presents some advantages. Kehrer incises the anterior vaginal wall in the median line, from the tubercle found at the orifice of the urethra up to the os uteri; in this way gaining access to the vesico-uterine cavity, he draws the fundus of the uterus into the wound, and divides the ovarian tubes between ligatures and obliterates the stumps by means of catgut sutures. He then performs vaginal hysteropexy immediately above the inner orifice of the os uteri. The grave abuse to which this operation may be put should make it an expedient which, like Cæsarian section or the forcible induction of labor, should only be resorted to in extreme cases upon mature deliberation and after consultation with the best authorities attainable.

A Malpractise Suit.

Dr. T. A. McGraw, of this city, was recently made a party to a malpractise suit, in which the claims of the plaintiff were so entirely preposterous and indefensible that the judge took the case away from the jury, and threw it out of court. The case was one of osteomyelitis, presenting painful tuberosities on both legs. It had been agreed that owing to the patient's financial condition only one leg should be operated upon, the one causing most pain. When the patient came to the operating room, both legs presenting a similar appear-

ance, some doubt arose as to which one was the most painful. The patient's relatives, who were present, were consulted, and they stated the left leg to be the seat of greatest pain. The patient was roused from the anesthesia, and being asked the same question, he also said the left leg. The left leg was accordingly operated upon, and upon emerging from the anesthetic the patient claimed a mistake had been made. He further alleged that the operation had made painful a limb hitherto without pain. No negligence of any kind being proved, the plaintiff was promptly non-suited. Dr. McGraw is to be heartily congratulated on this result, though the sympathy of the profession must be accorded to him in having been made the victim of such utterly groundless and indefensible litigation. The fortune of malpractise suits in this State has happily been adverse to their success, and it is to be hoped that would-be litigants will not be encouraged by any spirit of compromise or adjustment on the part of the profession.

The Murderer of Terriss.

The medical jurist must find considerable satisfaction in the judicial finding in the case of Prince, the murderer of the actor Terriss. Prince has, upon the medical testimony, been adjudged insane. There is no doubt that Prince's responsibility would have been admitted had his judges construed his actions in the terms of that judicial metaphysic which still serves for psychological doctrine in many courts. In a general sense, Prince undoubtedly knew right from wrong. He knew it was wicked to commit murder. This did not, however, make him responsible for the aberrations of his intellect in its impulsive forms. The history of Prince's case gives some useful indications as to the folly of liberating from confinement on apparent recovery those who may have been subject to homicidal and suicidal tendencies.

The Aigrette.

Should not the dainty women who attend antivivisection meetings in full panoply of fluff and feather think for a moment of the part they are playing in the wholesale slaughter of innocent and beautiful bird-life? Last year it was calculated that five million birds of brilliant plumage, one hundred thousand bobolinks, and seventy thousand song-birds, perished in deference to the decorative instincts of womankind. This year it is said the aigrette is to be more fashionable than ever, so the outlook for the feathered tribes is less bright than before.

A New Health Officer.

The appointment of Dr. Heneage Gibbes as Health Officer of Detroit will give general satisfaction to the profession. Dr. Gibbes is a man of the highest attainments. His epidemiological experience has been varied and cosmopolitan in character. He knows what should be done, and will have force enough to see that it is done. Dr. Gibbes will make an excellent and conscientious guardian of the public health.

ITEMS AND NOTES.

Chicago has a neurological society.

Baltimore is endeavoring to have adopted a pure food law.

There are at present three vacancies in the Navy and seventeen in the Army Medical Corps.

A Johns Hopkins Hospital nurse was dismissed because she refused to nurse the leper case there.

The Pasteur Institute of Baltimore has treated thirty-one patients since its opening last April.

It has been seriously proposed, as a matter of economy, to sell the Salpêtrière and Bicêtre at Paris.

There is a bill before the Maryland State Legislature to change the methods of committing the insane.

In the death of Dr. L. N. Beagle the profession of Flint, Michigan, has sustained a loss which will be long felt.

The Fourth International Congress of Surgery will commence in Cambridge on Tuesday, August 23, 1898.

The library of the late Dr. Thos. A. Emmett has been purchased by the New York Union Library at a cost of $150,000.

The University of Pennsylvania has been left $50,000 by the will of the late Mrs. J. C. Ayer, of patent medicine fame.

The Ninth International Congress of Hygiene and Demography will be held at Madrid from April 10 to 17, 1898.

Dr. Theophilus Parvin, of Philadelphia, Professor of Gynecology and Obstetrics at Jefferson Medical College, died in that city on January 29.

It is said that in consequence of a death from hydrophobia in Pesick, Bohemia, the local authorities have ordered every dog in the town to be killed.

Dr. H. T. Whitney, President of the Medical Missionary Association of China, is engaged in the laborious task of translating Gray's Anatomy into Chinese.

Thos. A. Edison, Jr., believes that he has made a discovery which will result in a perfect electrical apparatus for reproducing human thoughts as they are evolved in the mind.

A great many letters have of late been received by Professor Schenk, of Vienna, from mothers and would-be mothers, asking him to tell them how to bring forth sons instead of daughters.

It is likely that Congress will soon take some action to give the United States Marine Hospital Service authority to take charge of all cases of leprosy which may be found within certain districts.

The Rush Medical College has become a part of the University of Chicago, and the Medical Department will be materially improved and the standard raised to equal any university in this country.

Dr. Jules Emile Péan, the celebrated surgeon, died in Paris on January 30 He had practised medicine in Paris for nearly half a century, and had occupied many hospital and public positions of trust and honor. Dr. Péan was sixty-eight years old.

The Senn Medal.—Members of the American Medical Association who intend to compete for the medal offered by Dr. Senn for the best essay on some surgical subject are requested to forward typewritten copies to Dr. J. McFadden Gaston, chairman, Atlanta, Georgia.

The fifty-fourth annual meeting of the American Medico-Psychological Association will be held in St. Louis, Mo., May 10–13, 1898. Arrangements have been made by the committee for the accommodation of members at the Southern Hotel, where all meetings of the Association will be held.

Gustmann, of Frankfort, has published a monograph upon stuttering in which he states that there are no less than 80,000 schoolchildren in the German Empire who suffer from this defect. Among recruits for the army one per cent. are thus afflicted, and a considerable number are rejected for military service on this account.

There is reported to be a recrudescence of cholera in the Bombay Presidency, especially in Mandwi, where the inhabitants are seeking safety in flight. There were fifty-four fresh cases of cholera and thirty-seven deaths on December 29. The total cholera returns from the Bombay Presidency for the year are 14,257 cases and 11,882 deaths.

It is stated that telephones are to be placed in the wards of one of the Paris hospitals, within reach of the bedridden patients, so as to enable them to communicate with their friends outside. There will also be an arrangement whereby the telephones may be switched on to a wire connected with the concert hall, so that the concert may be enjoyed by the invalids.

Removal of the Stomach.—Since the publication of Dr. Schlatter's case of total exsection of the stomach, which was reported in the *Medical Record* of December 15 last, two operations of the sort have been undertaken in this country—one in St. Louis, and the other in Milwaukee. In each instance the patient died a few hours after the completion of the operation.

Just before the close of the year a meeting of the German professors and students of the University of Prague—the oldest German university in Europe—was called to discuss the question of its removal to some town situated among a distinctly German population, the cause being the claim that the Germans do not receive equal rights with their Bohemian colleagues.

Dr. S. Weir Mitchell's "Hugh Wynne" has proved a great favorite, not only with the critics, who commend it highly, but with the public, who have already purchased nearly 50,000 copies. A successor of "Hugh Wynne" is already announced—a story of the French Revolution, entitled "The Adventures of Francois." The opening chapters appear in *The Century* for January.

A bill has recently been introduced in the Ohio State Legislature by Representative Parker, which seeks to compel principals to a marriage ceremony to appear before a board of medical examiners to be examined for eligibility to enter into such a contract. The bill is formed to prevent marriages between persons who have kleptomania, insanity, true or hereditary tuberculosis, or certain blood diseases, such as syphilis.

By far the most important and far-reaching application of the Roentgen rays is that proposed by Professor Kelsch, one of France's most eminent military doctors, and is nothing less than the precise precocious diagnosis of pulmonary tuberculosis. Professor Kelsch brings up the possibility of promptly eliminating from the army all those young latent tuberculous patients whose disease cannot be detected by the ordinary means of percussion and auscultation. And when we think that one-fifth of the total mortality rate is due to tuberculosis, we are more than ever impressed with the great scope of usefulness of the Roentgen rays in this particular.

A life of the late Sir James Simpson has just been published, written by his daughter, and contains many interesting facts connected with his life not generally known before. James Simpson was the son of the village baker at Bathgate, in Linlithgowshire. At the age of fourteen he went to the University of Edinburgh, and he was one of the hard-working, frugal race of Scotch scholars. He lived on $50 a year, his only extravagances being books. A significant entry is quoted from his diary, says the *Medical Record*. It is as follows: "Finnan haddies, 2d. (4 cents); bones of the leg, £1 10s." ($7.50). In 1838, when he was twenty-seven years old, he became lecturer in obstetric medicine in the Extra-Mural School. Two years after he was appointed professor of obstetrics at the University. In 1847 he discovered chloroform. At the early age of fifty-eight he died, his end hastened by overwork.

Banquet to Professor Virchow.—On December 28, 1897, a banquet was given to celebrate Professor Virchow's fiftieth anniversary, both as a university teacher and as the editor of the world-famed *Archiv für Anatomie*. It was held in the large hall of the Kaiser-Hof. Delegates had been sent from the medical faculties from nearly all the communities and from not fewer than thirty-nine scientific societies. Professor Waldeyer held him up to all as a teacher of the whole scientific world. The entire medical world speaks his language. His words are grains of gold. Professor LePrank in his speech did honor to Professor Virchow as a scientific investigator and naturalist. In eloquent words he set forth how Professor Virchow has grown to stimulate the path of anatomy, and had created a new basis for medical thought by his doctrine of the cell. Virchow's reply was full of interesting reminiscences.

NEW PUBLICATIONS.

A TREATISE ON DISEASES OF WOMEN.

It speaks well for the intelligent discernment of the profession that this work should have, within so comparatively few years, already reached a third edition.

While retaining all of the excellent features of previous issues, the present volume has been thoroughly revised and brought up to date. Among the most important changes noted is the rearrangement of the subject matter in the section devoted to the injuries of the pelvic floor, which has been rewritten and further improved by the addition of new figures; and the more thorough discussion of the operative technique of abdominal and vaginal hysterectomy, with additional illustrations. Other changes in way of alteration or elaboration will be noticed at various points throughout the text, which, while still adhering to such of the older and more conservative methods as experience, time, and an increasing knowledge of pathology have shown to be worthy of perpetuation, at the same time reflects the best and generally accepted doctrines and practises of the modern school of gynecology.

The volume, therefore, may be taken as a reliable standard in determining the relative values of different methods of procedure. In its present form too much praise can hardly be accorded this work, for while it is inevitable that here and there issue can be taken with the author as to the soundness of opinions enunciated or the essential desirability of methods advocated, yet as a whole the treatise will stand as one of the most thoroughly comprehensive and accurate presentations of the various diseases peculiar to woman that has as yet appeared.

Considered strictly as a mechanical product, this volume, with its numerous and excellent illustrations, good paper, clear type, and plain, substantial binding, presents a highly creditable example of the best of the book-makers' art.

Treatise on the Diseases of Women. For the use of Practitioners and Students. By Alexander J. C. Skene, M.D., LL.D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y., etc. Third edition, revised and enlarged, with 290 engravings and four colored plates. Pages 991. New York: D. Appleton & Company, 1898.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY.

This book is a medical library in one volume. Among year-books it is without a peer. It is a complete epitome of medical and surgical progress during the past year. It provides the reader with the essence of current medical literature, and will be found an indispensable requirement to the practitioner desiring the latest information in any department. The editor-in-chief has not only brought to the compilation of this work his own scholarly attainments, but has had the collaboration of a staff of assistants who are all authorities in their special departments. The work is published in an exceedingly attractive and handsome form.

The American Year-Book of Medicine and Surgery. Being a Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery. Under the general editorial charge of George M. Gould, M.D. Price, cloth, $6.50; half morocco, $7.50. Philadelphia: W. B. Saunders, 1898.

ELEMENTS OF LATIN.

This book presents in small compass the principles of Latin etymology essential to the students of medicine and pharmacy. The progression from the beginning of the subject to the full use of Latin phrases is cleverly achieved in easy stages. There is little doubt that the book will satisfactorily serve the purpose for which its author has intended it.

Elements of Latin. For Students of Medicine and Pharmacy. By George D. Crothers, A.M., M.D., Teacher of Latin and Greek in the St. Joseph (Mo.) High School; formerly Professor of Latin and Greek in the University of Omaha; and Hiram H. Bice, A.M., Instructor in Latin and Greek in the Boys' High School of New York City. 5¼x7½ inches. Pages xii-242. Flexible cloth, $1.25 net. The F. A. Davis Co., publishers, 1914-16 Cherry st., Philadelphia; 117 W. Forty-Second st., New York City; 9 Lakeside Building, 218-220 S. Clark st., Chicago, Ill.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

The Technique of Arterial Suture.

Dr. J. B. Murphy, of Chicago, contributes to the *Medical Record* a very able paper entitled "Resection of Arteries and Veins Injured in Continuity—End-to-end Suture." He summarizes the technique of the operation as follows:

For convenience I will divide these experiments on the arteries into four classes: (1) Longitudinal incision; (2) transverse or irregular wounds involving not more than one-third of the circumference of the artery; (3) transverse sutures involving more than one-half of the circumference of the artery; (4) complete division and resection of the artery not exceeding three-fourths of an inch.

The points to be considered in the technique are: (1) Complete asepsis; (2) exposure of the vessel with as little injury as possible; (3) temporary suppression of the blood current; (4) control of the vessel while applying the suture; (5) accurate approximation of the walls; (6) perfect hemostasis by pressure after the clamps are taken off; and (7) toilet of the wound.

The arterial wall and its endothelium are products of the mesoblast the same as the peritoneum, and react excessively to irritation, but much more slowly than the peritoneum. Infection must be assiduously avoided, as we have not only the regenerative action of the vessel walls interrupted, but also the action of the cellular elements of the blood forming a thrombus in their efforts to prevent the admission and advancement of sepsis in the vessel. If we have a suppuration outside the wall of the vessel, we may have a penetration of the infection to the inner wall and a thrombosis, failure of union from infection, or necrosis of the vessel when it is exposed to the action of the pus germs.

The vessel wall should be thoroughly exposed and the field prepared. The loose connective tissue should be freed with scissors and dissecting forceps for the required distance above and below the site of operation. If the operation be for a dissecting aneurism, it is well to expose the vessel above and below the tumor so as to control the hemorrhage; then open the aneurismal sac, remove the clot, expose the injured wall of the vessel, freshen the edges of the wound, and suture.

The Effects of Septic and Aseptic Ligatures.

The *Archives Générales de Médecine* for November contains an important original memoir by S. Duplay and H. Lamy, entitled "Cicatrization of Arteries following Ligature in their Continuity—Comparison of the Effects of Septic and Aseptic Ligatures." Their conclusions may be given in their own words: "(1) Operative asepsis in the ligature of arteries leads to cicatrization under conditions totally different from those known and taught by authors of text-

books in the first half of this century. The production of an obliterating clot destined to become organized and the elimination of the ligature were then the two fundamental phases in the work of cicatrization. To-day we can affirm the uselessness of the clot, and we know that the ligature is not eliminated in an operation performed aseptically. Consequently it is permissible to depart from the old rule which prescribed, on the ground of favoring the production of the safety clot, that the artery should be tied at as great a distance as possible from the collateral branches. This conclusion has been distinctly formulated in certain recent works; nevertheless the classical precept still figures in the text-books most widely used, and it is time that it should disappear therefrom. (2) Our personal researches conducted on two parallel series of ligations, in one of which the operations were rigorously aseptic, while in the other they were performed with an infected ligature, proved to our minds that there exist radical differences between the two cases. Only the septic ligatures give rise in a constant manner to the obliterating clot extending up to the first collateral branch. The aseptic ligatures are followed by cicatrization by first intention of the coats of the vessel divided by the thread. They sometimes give rise to insignificant coagulations, or the very different aspect, however, from that of the preceding ones, and which are sometimes discovered only with the help of the microscope. These coagulations, comparable to those which are produced experimentally in aseptic traumatisms of vessels, are merely of theoretical interest. Therefore the surgeon has all the less reason to trouble himself about the collateral vessels at the seat of election of the ligature that in an aseptic ligature the clot practically does not exist."

Anastomosis.

The London *Lancet*, January 7, has this to say in regard to anastomosis: Referring to surgery the writer says: "During the past year the progress of surgery, if not so exceptionally great as in some other years, has yet been evident. In the surgery of the abdomen, the question of the best method of uniting a divided bowel is still unsettled. Murphy's buttons, while not perhaps retaining all the favor which they had on their first introduction, are still looked upon by many as on the whole the safest and unquestionably the most rapid means of effecting internal anastomosis. That some at least of the unfortunate results which have followed the use of the button have been due to its incorrect application is extremely probable, as the best results have been obtained by those who employ it most frequently. One danger from the use of the anastomotic button is the tendency it has to remain in the bowel. This has happened many times, and generally without ill-effect, but occasionally symptoms of intestinal obstruction have resulted. To obviate this danger, Dr. Martin Gil of Malaga has devised a button which resembles Murphy's in some respects, but it consists of decalcified bone, so that it can be dissolved by the digestive juices after it has accomplished its work of uniting the bowel. Dr. Gil has employed the method with success in dogs, but the button has not yet been used in the human body. Those who decline to avail themselves of an anastomotic button either employ some form of "bone bobbins," such as that

invented by Mr. Mayo Robson, or trust to simple stitching without mechanical aids. The fact that every one of the methods mentioned gives excellent results, and is extensively employed, shows that a skillful and experienced surgeon can safely unite divided intestines by any of them, and that he may be expected to attain the greatest success by using that method with which he is most acquainted. Even in the future we must not look for a complete discarding of any of these methods."

Anesthetics.

Many valuable and voluminous papers on anesthetics have appeared during the year, notably one in which Hill carried further his research, published this year in the *Journal of Physiology*. He pointed out that the circulation of the blood depends upon the vaso-motor mechanism being intact.

The abdominal wall is able to support the veins and so prevents their distention under the hydostatic pressure of gravity. Muscular contraction during expiration compresses the hepatic and other veins helping to fill the right heart. When the vaso-motor tonus is maintained the splanchnic area abrogates the effect of gravity. In vaso-motor paralysis gravity at once causes accumulation of blood in the abdominal vessels. This leads to anemia of the brain and the respiratory center is driven to greater activity. Powerful muscular movements take place and the blood again enters the right heart. Contraction of the abdominal muscles limits the outflow from the splanchnic vessels. When both the vaso-motor tonus and the respiratory pump are paralyzed the circulation cannot be maintained in the "feet down" position. Chloroform paralyzes both these factors of the circulation. No amount of compression of the abdominal veins will produce paralytic distention of the heart. Both chloroform and asphyxia will do so. Hill finds that such a condition is at once relieved by dropping the patient into the "feet down" position, as the blood at once flows from the right heart by the force of gravity. The teaching of physiology has thus a practical value and tells us that the vaso-motor paralysis is a danger to be looked for and provided against as well as the always accepted danger of respiratory paralysis, a condition which Hill finds may arise from anemia of the brain centers as well as from accumulation of the drug.

Asepsis in Office Practise.

Dr. W. Scheppegrell, in an editorial in *Laryngoscope* (Vol. iv, No. 2), makes some pertinent and practical remarks on the subject of asepsis in office practise. The necessity of asepsis in surgical practise is so well established that one who does not carry out all its details is liable to severe condemnation. These rules have not been so rigidly enforced, however, in office practise. The necessity of using aseptic instruments for the ear, nose and throat is evident. Though the nasal mucus has great power of resistance against infection, it is also capable of absorption, as seen in cocaine applications. The throat and mouth, though to a less degree, have also this power of absorption. The necessity of using due precaution in the ear is witnessed by

those cases in which mild acute suppurative otitis media has been transformed to purulent types by infection from unclean ear specula.

The instruments for these cavities require sterilization. Simple washing and dipping in weak carbolic solution is not sufficient. Ten minutes in the sterilizing apparatus should be the rule. This careful method necessitates a number of extra instruments, but economy in this particular is by no means profitable. Patients soon realize who is and who is not careful in the preparation of his instruments. Not only should the instruments of the physician be kept in proper condition; the same rule applies to every part of his office. A dusty, neglected apartment is very apt to leave its impress on the mind of the patient.

A Syringe for Local Anesthesia.

In the *Deutsche Medicinische Wochenschrift* of December 2 Dr. Wullenweber, of Tandslet in Alsen, describes a syringe which he has devised for the purpose of easily overcoming the resistance encountered when Schleich's solution is injected into dense structures such as the matrix of the nail, the palm of the hand, the sole of the foot, etc. The piston-rod has a screw thread and carries a small loose nut which is provided with two small lateral projections at opposite points of its circumference. The metal mount at the upper end of the body of the syringe has two projecting arms, with the help of which the instrument can be securely held. This mount has the usual circular central aperture through which the piston rod moves freely. At opposite points of this aperture there are two small notches corresponding to the projections on the nut, so that in one position of the nut it can be passed through the aperture and then by giving it a quarter turn it can be firmly fixed to the mount. Turning the knob at the top of the piston-rod now brings the screw into action, and the solution is expelled with an easily regulated force which is capable of overcoming any resistance. Obviously the syringe can be used according to circumstances either with the screw motion or with the ordinary direct pressure exerted by the thumb or finger.

The Significance of Abdominal Contusions.

The European correspondent of *L'Union Medical de Canada* reports a discussion held at the recent French Surgical Congress, on contusions of the abdomen. "It is very often exceedingly difficult or impossible to decide in cases of abdominal contusion whether there is or is not any serious lesion of an internal organ. The symptoms which may help to localize an injury were briefly spoken of. The majority of those present agreed that where there was much shock, or in cases in which the symptoms were of a mild order, that it was best not to interfere surgically. Under expectant treatment many cases where the lacerations were extensive terminated favorably. An early and positive diagnosis of internal injuries of the abdomen cannot be made except in cases where the kidney or bladder are alone involved. An exploratory incision is justifiable if an approximate diagnosis cannot be obtained without, or if there is any probability of serious visceral lesions existing. The lapa-

rotomy should be made as early as possible. It must be borne in mind, however, that the only indication for immediate operation is profuse hemorrhage, and that patients do better when they are allowed to recover from a violent initial shock before a laparotomy is attempted.

What Produces and What Prevents Anchylosis of Joints.

Dr. A. M. Phelps in a recent article in the *Lancet-Clinic* concludes in an article with the above heading:

1. That a normal joint will not become anchylosed by simply immobilizing it for five months.

2. That motion is not necessary to preserve the normal and histological character of a joint.

3. That when a healthy joint becomes anchylosed or its normal histological character changed, it is not due to prolonged rest, but to pathological changes.

4. That immobilizing a joint in such a manner as to produce and continue intra articular pressure will result in destruction of the head of the bone and the socket against which it presses.

5. Atrophy of the limb muscles will follow prolonged immobilization of a joint. The question of anchylosis is determined by the severity and duration of the inflammation, the presence of intra-articular pressure, the subsequent cicatricial contraction of the soft parts around the joints, the tissues involved, and the amount of destruction of bone and cartilage.

Carcinoma of the Penis.

From sections of eleven cases of amputation of the penis for carcinoma, Thomson, of London, has made the following observations:

1. In ten the type was a squamous epithelioma, resembling carcinoma of the lip.

2. The commonest point of origin was the dorsal aspect of the glans in the region of the corona.

3. The existence of psoriasis præputialis as described by Schuchardt was demonstrated in the tissues surrounding the growth.

4. Carcinoma extends along the lymphatic vessels on the dorsum of the penis, through the corpora cavernosa and into the glans. The dense fibrous capsule of the corpora cavernosa retards the progress.

5. The urethra is involved only in the last stages.

Cycling and Varicose Veins.

The French Touring Club has taken the trouble to obtain the written opinions of sundry well known Paris physicians in respect to the probable influence of cycling on persons with varicose veins. There seems to be a consensus of opinion that, in principle, varicose veins do not *per se* establish a contraindication for cycling. It is obvious that while one category of persons with varicose veins — those of sedentary habits and slow circulation — have much to gain from the unrivaled opportunity for exercise which this par-

ticular pastime affords, there are others in whom the varicose tendency is an indication of visceral congestion or cardiac weakness. In these the effect of cycling would probably be to aggravate the preexisting disease. It is impossible to lay down any hard and fast rule for the guidance of would-be cyclists in this respect, because the decision in each individual case must be based on the cause and not on the mere existence of the lesion.

A Dressing in Epididymitis.

Dr. Karl Gerson (*Berliner Klinische Wochenschrift*, Jan. 17, 1898) recommends as a dressing in epididymitis, when compression is required, a bandage made of soft elastic material and lined with zinc india-rubber plaster.

Gerson claims for his method that the testes are excluded, there is a higher suspension of the gland, and that the fixation is more natural.

As soon as the inflammation commences to subside the bandage is removed.

MEDICINE.

Hepatic Colic.

Professor Barth, speaking before the Académie de Médecine, Paris, on the treatment of hepatic colic by olive oil taken internally, said in order to understand the mode of action of olive oil it would be necessary to picture to oneself the mechanism of hepatic colic. The biliary calculus, dislodged by physiological or accidental contraction of the vesicle, where it is formed, passes into the excretory canal. If it is voluminous, and, above all, if it presents a jagged surface, it irritates the mucous membrane of the duct, provoking violent contractions, which instead of forcing on the foreign body, arrest its course, and then pain accompanied by spasm is felt, first over the seat of the stricture and finally extending to the duodenum and the stomach. The attack continues until the patient is overcome from exhaustion, and it falls back into the vesicle or passes slowly on its way to the duodenum, each of its movements producing secondary attacks.

Now when four to eight ounces of oil are poured into the stomach, that organ in the throes of animated contractions quickly sends a portion of it into the duodenum, where it exercises a most soothing influence on the irritated mucous membrane, and by reflex action causes the spasm to cease, which formed the principal element of the painful attacks. That the oil has any influence in dissolving the calculus he does not believe. Repeated at intervals the oil seems capable of hindering the return of the trouble by rendering active and fluidifying the biliary secretion.

Black Tongue.

At a recent meeting of the Société Anatomoclinique de Lille, M. J. Loheac related the histories of two patients who were subjects of that peculiar affection known as "black tongue," which he said was generally presented under

the form of a patch of more or less deep black color situated on the dorsal surface of the tongue. This patch was composed of villosities spreading in different directions, due to a proliferation of the epithelium, which was hypertrophied lengthwise, under the influence of causes still unknown, and the epithelium at the same time became more refractive. A microscopical examination had shown the presence of various micro-organisms in the center of these villosities, notably the leptothrix, also spores resembling those of trichophyton, according to Maquin and Raynaud.

The etiology of this strange disease was obscure. Authors have remarked, says M. Loheac—and his two observations bore out the truth of the statement—that it was developed preferably in old persons and in those who had been weakened by disease, particularly in those who suffered with digestive troubles. The prognosis of this affection, he said, was very favorable. It was a purely local disease, having no remote results on the general health, and did not even disturb the functions of the tongue. If the affection was left to itself, the black color disappeared after a time without leaving any traces by becoming progressively attenuated from the periphery toward the center.

The treatment consisted essentially in scraping off the villosities, and generally one operation sufficed. Alkalies were indicated to combat the acidity of the mouth, which was nearly always present in such cases.

Coma.

Dr. J. T. Eskridge, of Denver, in an article in the *New York Medical Journal*, January 29, entitled "Difficulties in Determining the Causes of Coma," says:

The proper management of cases of coma depends so largely upon our knowledge of the cause of the comatose state that it is necessary for us to have a comprehensive knowledge of the various symptoms of the coma that results from each of the numerous causes.

Coma may be gradual or sudden in its onset—complete or incomplete. Stupor or partial insensibility has been used to designate incomplete coma.

Coma other than that caused by hyperpyrexia, typhoid fever or cancer in parts of the body other than the brain, the author divides for the sake of convenience into the following seven groups:

1. Transient coma.
2. Coma from lethal doses of medicinal agents.
3. Coma from poisons other than medicinal agents circulating in the blood.
4. Convulsive state from coma.
5. Voluntary coma.
6. Coma from profound disturbances of the cerebral circulation, but unattended by organic lesions of the brain substance.
7. Coma from organic disease of the brain.

Were it not that many of the above causes of coma are so infrequently factors in giving rise to unconsciousness, mistakes in diagnosis would be much more frequent than they really are. The major portion of the author's article is made up of a careful *résumé* of the symptoms belonging to the different groups into which he divides the comatose state and the causes thereof.

The Diagnosis of Scarlet Fever.

The diagnosis of scarlet fever is not always easy, and Lindsay (*British Medical Journal*) has very well summarized the main points to be borne in mind. These are:

1. Initial vomiting, very constant in children under ten, less so above that age, and rare in measles, German measles, and diphtheria.

2. Undue frequency of pulse—say 140 or 150—out of proportion to the other symptoms.

3. The rash, beginning on the upper part of the chest, over the clavicles, and about the flexures of the neck, often well marked on the back of the waist.

To discriminate between scarlatina and German measles Lindsay is in the habit of relying on the following points: In scarlatina there is initial vomiting; a brief but well marked prodromal stage, with vomiting, chills, headache, and sore throat, sometimes going on to ulceration; no early enlargement of post-cervical glands. In German measles there is no vomiting, no prodromal stage, the rash being often the first symptom and always appearing on the face; little or no constitutional symptoms; no ulceration of the throat; a very characteristic early enlargement of the post-cervical glands.

PATHOLOGY AND HEMATOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,

Microscopist to Harper Hospital, Detroit.

Leucocytes and Lymphocytes in Inflammatory Processes.

Professor Ribbert, of Zurich, Switzerland, in an article on Inflammation in the *Archiv für Pathologische Anatomie und Physiologie und für Innere Medicin*, Band 150, Heft 3, says there are two important varieties of white cells in the blood, viz., the leucocytes and the lymphocytes. The former have a nucleus divided into two or more parts, and contain neutrophile granules; the latter possess one large individual nucleus, containing much chromatin and no granules. It has been believed that the cells with two or three nuclei originate from those with the one nucleus. This Professor Ribbert regards as erroneous, and endeavors to show that there is no genitive relation between them. The leucocytes originate from the bone-marrow, the lymphocytes from the lymphatic glands. The leucocytes emigrate in acute inflammatory processes; the lymphocytes are found in chronic processes forming the well known small-celled infiltration in inflammatory tissue. The accumulations of cells are formed by the multiplying of lymph cells which have been found in the connective tissue of normal organs, as for instance the lungs and the liver, and their analogues of the lymphatic glands. As these may be enlarged by the absorption of toxins, the small ones are also, and can easily be found in this condition, being more or less hidden before inflammatory enlargement. The microscopic lymphatics, as well as the large ones, arrest small particles which find their entrance into the body either by respiration or tattooing. Chronic

inflammatory processes are never evenly distributed over affected organs, but show a typical localization. In nephritis those places are first affected where the most concentrated urine, and therefore the richest in poison, is flowing in the canals of the kidney. The cirrhotic liver, the inflamed lungs and walls of large blood-vessels show the inflammatory changes located about the lymphatic vessels. The lymph, loaded with poison, is flowing slowly, retained by the above mentioned small lymphatic glands, which act as filters. The soluble toxins, the microbes and dust particles come here in longer lasting and closer contact with the tissues, and are better enabled to produce chronic inflammatory changes.

Valvular Insufficiency of the Saphenous Vein.

Dr. Delbert recently delivered a clinical lecture on the influence of valvular insufficiency of the vena saphens upon various veins of the lower leg. According to *L'Union Médical de Canada* for December, 1897, the main points are as follows: The valvular apparatus of the vena saphens is insufficient if the blood-pressure in the vessel changes with the attitude of the patient, being low in the recumbent and high in the erect position. This can easily be demonstrated without apparatus other than a manometer in a vein lying superficially in a part free from adipose tissue. From a clinical standpoint two kinds of varices are distinguishable: first, those with high tensions, and secondly, those where the tension is much lower. In the first variety the valvular apparatus is insufficient; in the second it is normal and able to support the column of venous blood above. The varices with low tension cause very little discomfort, while those of high tension give rise to pain, edema, cramps, ulcers, and rupture. The latter are suitable subjects for surgical interference. The unfavorable symptoms disappear after double ligation and extirpation of a part of the saphena. This operative procedure does not effect a cure of the varices, but only a transformation of the harmful into the indifferent variety.

The Causes of Blood Coagulation in Living Tissues.

"In Regard to the Morphology of Extra-vascular Coagulation" is the title of an article written by Professor Arnold, of Heidelberg, in the *Archiv für Pathologische Anatomie und Physiologie und für Innere Medicin*, Band 150, Heft 3.

Arnold describes the different microscopical changes which take place in extravasated blood inside of the animal body. One colored plate is added to the paper, showing the changes that take place in the blood-corpuscles and fibrin. Arnold thinks that the main cause of coagulation is not by the white cells as is generally believed, but by the red corpuscles. Coagulation is a very rapid process, and in its early stages no changes can be seen in the white cells. The erythrocytes, however, discharge a visible substance and are broken up as rapidly as the fluid becomes solid. If one or both have the power to transform the fluid, most probably it will be the one which adds a substance to the coagulating material. Arnold does not deny the great activity of the white

cells, and admits that perhaps a coagulating ferment may be discharged by them. As the changes in the leucocytes become apparent only after coagulation has begun, there are no visible proofs for their causative influence

Amyloid Degeneration.

Professor Lubarsch, of Rostock, who has been conducting an extended series of experiments on dogs, rabbits, and guinea-pigs, endeavoring to produce amyloid degeneration, has published his results in the *Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin.*

As in human pathology, amyloid degeneration does not always follow chronic suppuration even of long standing. Only a portion of the animals revealed amyloid substance in their organs after being subjected to artificial chronic suppuration. In the experiments the chronic suppuration was produced either by injection of oil of turpentine or bacteria, mainly staphylococci. It appears that amyloid degeneration once established may disappear again.

In concluding, the author expressed his thanks to the Elizabeth Thompson Science Fund of Boston for supporting him so liberally in his costly experiments.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Fronto-Ethmoidal Empyema.

M. le Dr. A. Riviere, of Lyons, France, makes an interesting contribution to the study of this subject (*Revue Hebd. de Laryngologie, etc.*, vol. xviii, No. 52). The patient, a male, aged thirty-nine, was referred to the writer on account of a diplopia supposed to be of mechanical origin. Under potassium iodide there had been temporary relief with recurrences. Examination showed a fluctuating, not painful, tumor, the size of a small hazelnut, deep in the inner wall of the left orbit. Patient's family history good. There was a history of injury to the nose during childhood, with subsequent chronic catarrhal trouble. For four or five years there had been an intermittent nasal discharge of disagreeable odor, and frontal headaches. Both lower and middle turbinates on the left were decidedly hypertrophied, and whitish pus flowed from the middle meatus. The outflow of pus was not influenced by position of the head. Transillumination of maxillary sinus showed perfect transparency. The fluctuating mass in wall of orbit occasioned slight exophthalmos and diplopia; the alternate aggravation and improvement was probably due to the emptying of the pouch by pressure.

A long incision was made beneath and parallel to the eyebrow and the frontal sinus opened with chisel and mallet. Free discharge of pus occurred. The cavity was carefully curetted, the anterior ethmoidal cells opened and numerous fungosities scraped away. An opening was made into the middle meatus and thorough drainage externally, as well as through the sinuses into the nose, was established. Recovery was uneventful and complete, with a

small cicatrix and slight depression covered and concealed by the eyebrow. No recurrence after one year. The author speaks for the importance of treating such empyemas with the thoroughness and care which would obtain in cases of empyema in other regions of the body, and attributes the happy result in this case to the fact that all necrotic tissue was so effectually removed.

Anomalous Position of the Internal Carotid.

Dr. Thompson (*Laryngoscope*) reports a case with an anomalous position of the internal carotid. On examining the pharynx of a young woman a distinct arterial pulsation was observed behind the posterior pillar of the pharynx on the left side. External palpation showed the artery absent from its normal position on that side. There was no history of pain in the throat or symptoms of aneurism. The right side was apparently normal. The course of the left artery in the pharynx was very superficial, apparently just beneath the mucous membrane.

This case would be one to remember and record among the rare anomalies of the carotid.

Reflex Neuroses of Nasal Origin.

At a meeting of the Netherland Society of Laryngology, Rhinology, and Otology, Dr. Moll, of Arnheim, reviewed the history of nervous reflexes, and cautions against adopting extreme opinions which attribute to them, at certain times too important, and at other times too slight, a rôle. He described a case of very serious disorder of deglutition in a man aged sixty years, and which completely disappeared after ablation of a spur of the septum. The patient, who for a year could only swallow liquids, gained the power of taking solids. In another similar case the immediate effect of the operation was satisfactory, but the final result was less favorable.—(*Rev. Hebd. de Lar.*) *The Medical Bulletin.*

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
Lecturer on Dermatology and Syphilology, Detroit College of Medicine.

Sarcomatosis Cutis.

De Amicis (Twelfth International Medical Congress, Moscow, *Monatsh. für Prakt. Derm.*, Band xxv, No. 7, 1897, p. 309) restricts his remarks to primary sarcoma of the skin, a condition he considers under three heads: (1) Non-pigmented sarcoma cutis; (2) melanotic sarcoma cutis; and (3) multiple idiopathic hemorrhagic sarcoma cutis.

In the evolution of the disease three periods may be considered: (1) Period of superficial infiltration with reddish-blue patches; (2) period of telangiectic and angiomatous new growth; (3) necrobiotic and cachectic period, in which the viscera become involved, and death closes the scene.

Frequently all four extremities are affected, but by no means always. The

course of the disease may be rapid, but usually this is not the case. Involution may occur, especially in the the first period, and it may be spontaneous or the result of treatment (arsenic). The earliest cases observed led to the view that the total duration was short. Further experience has shown, however, that the disease may go on for twenty years and more, but it is usually fatal.

Microscopically, spindle cells are found originating from the papillary body or vascular territories of the cutis. Towards the end of the disease the formation of new vessels is accompanied by dilatation of the older ones, together with the production of hemorrhagic foci, with wandering of red blood-corpuscles into adjacent parts, resulting in pigmentation.

In the harder lesions, spindle cells predominate; in the soft, angiomatous ones. On the other hand, myxomatous tissue is chiefly represented. These forms are present in the metastatic growths found in the secondarily involved viscera (pleura, liver, bones, etc.). The glands do not present any appreciable changes.

As to the etiology and pathogeny of the disease, they are shrouded in darkness. Heredity and syphilis have no significance. With regard to sex, all de Amicis's cases (fifty) were men. Of all the cases observed, only three were of the female sex. The disease may occur at any age, but it affects adults chiefly. De Amicis has observed it in a child of five and a boy of fifteen.

To explain the cause and pathogeny of the disease, Cohnheim's embryonic theory no longer suffices. The line now taken is the search for a micro-organism. In this, however, de Amicis has been quite unsuccessful, nor does he think Sanfelice's blastomycetic views have led to any positive result. Campana, on the other hand (Dermatosi Neurapthice, Genoa, 1895), as a result of his investigations, is inclined to a trophoneurotic view.

With regard to treatment, de Amicis gives details of two cases treated by subcutaneous injections of arsenic. In one he considers a cure has been obtained, and in the other marked improvement.—*British Journal of Dermatology*, January, 1898.

Symptomatic Anomalies of Chancre and the Syphilides.

Barthélemy, of Paris (Twelfth International Congress, Moscow, 1897), says there is one among the anomalies of chancre which has not been sufficiently studied, although pointed out by Verchère, viz, its absence. Syphilitic virus *does not* give rise to a chancre when it passes directly into the blood, or when it is deposited in the subcutaneous tissue, without leaving virulent particles in epidermis or corium.

Adenopathy accompanying chancre, considered as a constant phenomenon, may be absent.—*Journal of Cutaneous and Genito-Urinary Diseases*, December, 1897.

THE MEDICAL AGE

Vol. XVI. DETROIT, MARCH 10, 1898. No. 5.

ORIGINAL CONTRIBUTIONS.

DIPHTHERIA AND SCARLET FEVER: THEIR RESTRICTION AND PREVENTION FROM THE PHYSICIAN'S STANDPOINT.

BY CHARLES G. JENNINGS, M.D., DETROIT.

While mindful of the interests of the community, the family physician views the restriction and prevention of the contagious diseases to a large extent from the standpoint of the infected household. He sees as no one else can the mental, physical and financial distress that is brought into a family by the invasion of a grave contagious disease. In this emergency it becomes his duty to give medical aid to the infected patient; to prevent the extension of the disease within the household; to act as counsellor and advocate to the family in its quarantine relations with the sanitary authorities and the public; and lastly, to aid the sanitary authorities in all reasonable and just efforts to restrict the spread of the infection.

From this standpoint this paper will consider the prevention and restriction of scarlatina and diphtheria.

The germ of scarlatina has not been isolated. Our knowledge of its life history has been gathered from clinical studies of the disease as it appears in man.

The facts that guide the prevention of the disease are:

The short period between exposure and the development of the disease—the period of incubation. This is on the average from three to five days; very rarely seven days.

One attack usually gives immunity through life.

Compared with measles and smallpox the susceptibility of children to scarlatina is not great. Approximately one-half of the children exposed take the disease. After the tenth year susceptibility rapidly declines. Approximately one-twentieth of the adults exposed are infected.

The striking distance of scarlatina is short—but a few feet. To contract the disease a susceptible subject must come in close contact with the infected individual or article.

Scarlatina is very feebly contagious during the period of invasion—that is, before the development of the rash; most contagious during the period of

eruption; mildly contagious during the period of desquamation or scaling.

The germ of the disease is not propagated outside the infected individual. Technically the germ is an obligatory parasite.

It is not readily dissipated by exposure to the air as is the germ of measles, for example, but it is very tenacious of life and clings with great pertinacity to infected individuals, apartments, and articles of clothing and furniture. Without thorough disinfection an apartment and its contents may remain a source of infection for months.

Scarlatina is carried with great facility by a third person. The utmost care is demanded from those who are compelled to come in contact with the infection.

The duration of the contagious period is variable. From four to six weeks —that is, to the end of the period of desquamation — is the period usually accepted. This period may be materially shortened in mild cases by careful disinfectant bathing during convalescence, and is sometimes indefinitely prolonged by complications. Four weeks is the minimum time limit adopted by the local health board.

With the knowledge of these facts the prevention of the disease by isolation and disinfection becomes only a question of detail.

Because of its very limited range of action, the immunity of adults and many children, the abruptness and violence of its early symptoms, and the promptness with which it can be recognized, it is the most easily controlled by modern sanitary methods of all the acute infectious diseases. Its control may be considered as a test of the efficiency of the sanitary methods of a community.

Diphtheria is caused by the Klebs-Loeffler bacillus. Our recently acquired positive knowledge of the life-history of this organism, its mode of action, and its methods of distribution, together with the production of artificial immunity by antitoxin injection, have made diphtheria a disease in which the possibilities of preventive medicine are most gratifying.

The facts that guide prevention of diphtheria are:

The short period of incubation; from two to five days.

One attack does not give a lasting immunity.

Children are more susceptible than adults. No age, however, is exempt.

Close contact with a patient or infected article is necessary for the communication of the disease.

The secretions from the seat of membranous exudate, usually the nose and throat, are the carriers of the contagion.

Direct infection is the usual method of communication of the disease. Direct infection may occur from persons convalescent from diphtheria whose throats still contain virulent bacilli. How long such throats retain bacilli is uncertain. They have been found two weeks and longer after the disappearance of the membrane.

Direct infection may also occur from persons suffering from a mild form of the disease which is not recognized as diphtheria.

Virulent bacilli may lurk in the throat and nose of a person who may directly infect another without suffering from the disease himself.

Indirect infection may occur through a third person, or from clothing and other articles that have been in contact with a patient. As a matter of fact, however, infection through a third person, except one who has been in close and prolonged contact with a patient, is not common. As compared with scarlatina and smallpox the danger of communicating diphtheria in this way is insignificant. The popular mind has unduly exaggerated this danger.

Very briefly stated, these are the main clinical facts that guide the physician and public sanitarian in their efforts to restrict the spread of these contagious diseases, and were they able efficiently to execute well known sanitary methods, scarlatina almost certainly, and diphtheria probably, could be made as rare in our community as is smallpox. They would prevail as this disease does, only at times when centers of infection are imported into our midst. That these diseases still are frequent is not the fault of medical and sanitary science, but the fault of those whom science seeks to protect. The community persistently refuses to be protected.

It is unnecessary to consider the details of practical sanitation as applied to these diseases. The principles are: perfect isolation of the infected person during the whole of the infectious period; and thorough disinfection of all persons and things that may be the carriers of infection from the sick to the well.

In the case of diphtheria, however, medical science in the last few years has added to its weapons of defense a remedy and preventive of such far-reaching influence that in its life-saving power it can justly be classed with preventive vaccination for smallpox. I refer to diphtheria antitoxin. With it as a curative agent we have here nothing to do. Its remarkable powers as shown in hundreds of thousands of cases have put that beyond question. As a preventive against diphtheria it is not as yet so thoroughly appreciated. Abundant experimental and clinical evidence has been accumulated to show that antitoxin administered to persons exposed to diphtheria confers an immunity lasting from three to six weeks. The experience of the New York Board of Health shows that at the end of this period about one in a hundred of those exposed develops a mild attack. Of 17,000 exposed persons immunized in this way, but two have died. Immunized children, however, while proof against contagion themselves, may carry it to others.

As vaccination does in smallpox, so antitoxin injection should go hand in hand with isolation and disinfection in the prevention of diphtheria.

To return to isolation and disinfection. Simple as this may seem, the practical difficulties attending it are at the present time often insurmountable.

The relative efficiency of methods of isolation and disinfection, and the difficulties encountered in executing them, can perhaps best be brought out by considering the methods adopted by the health officials.

Upon notification of the existence of one of these diseases the health board through its inspector placards the house, distributes circulars of information to the householder and neighbors, and instructs the family in the regulations of the quarantine. From time to time the inspector visits the house to observe the efficiency of the quarantine and to supply the immediate needs of the iso-

lated household. At the termination of the isolation period, the disinfector burns a few pounds of sulphur in the infected apartment, with precautions to insure as far as possible the exposure to the disinfectant of all infected articles, removes the placard, and the quarantine is ended.

While the health board does all that public sentiment of the present time permits, it must be seen from the above that practically all it does is to warn the community of the presence of the contagious diseases and admonish the infected household of its duty in aiding to protect the community from the spread of the infection. The details of isolation and disinfection—and upon these the whole structure of prevention rests—are carried out by the physician, the nurse, and the members of the household.

But little experience in the care of contagious disease is necessary to appreciate the multitude of detail that is essential to the establishment of the perfect isolation, and to the maintenance of the continuous disinfection that constitutes efficient sanitation. To insure this demands a house of sufficient size to permit the isolation of the patient, the liberal attendance of the physician during the whole of the isolation period, the constant attendance of a skilled nurse or intelligent relative, and a domestic service ample to supply the many needs of the sick-room. Such conditions can be filled only in the homes of the well-to-do, and from an ample observation the writer can say that the sanitation in contagious diseases among the intelligent people of this community is as near perfect as it can be made. Extension of the disease beyond the confines of these houses is very rare.

In the habitations of the lowly, to carry out the essentials of infection control is too often impossible. As all who are in a position to know will testify, isolation here is a farce and disinfection a fetish.

These people object, and justly, to a quarantine that cuts off a family from all outside communication for a month or more. The wage-earner must be confined with the rest, and such a period of enforced idleness may bring upon a household a financial distress that months of steady and patient toil will not lift. An opulent community has no right in equity or morals to demand such a sacrifice on the part of one of its humble and unfortunate members for its own protection. No one realizes this better than the health authorities, and they are compelled to permit a laxity in the enforcement of the quarantine regulations that renders them practically useless.

The problem of the control of scarlatina and diphtheria, then, is not one that can be settled by more policemen and more sulphur. If it wishes to still further restrict these diseases the community must adopt some plan that will restrict, and place the burden of its maintenance upon those whom restriction benefits.

In his last annual report the able and efficient health officer of Detroit, recognizing the difficulties of practical sanitation in the tenement houses, makes a strong plea for the adoption of the cottage-of-refuge system. In the opinion of the writer this is the only method of control of scarlatina and diphtheria among the poor that offers any reasonable prospect of success. Just what the details of such a system shall be is not for us to consider at this time. Whether on the hospital or cottage plan, it should be a place of refuge where

the unfortunate subject of contagious disease shall receive the proper care during his illness, under the guidance of his own physician, and attended by his own nurse or relative; where the case of uncertain diagnosis shall not be in danger of certain infection; and where the convalescent, during a prolonged detention, shall not be exposed to the many secondary infections that infest the crowded sick-ward.

Such a refuge, removed from the possibility of political control, considerate of the rights of the private physician, and of the unfortunate patients, would efficiently protect the community.

Such a plan, I believe, would receive the hearty support of the medical profession. In this, however, as in every extension of its authority over communicable disease, the health board encroaches upon the province of the family physician. In the interests of the public health the physician has sacrificed much, and is ready to sacrifice much more. But the health authorities should move with caution, and displace the physician as medical adviser only when the evidence is most certain that the salaried, impersonal public official can accomplish more than the interested, conscientious physician.

The tenement districts and the closely packed and unhygienic homes of the poor are, then, the resting and breeding places of diphtheria and scarlatina. Isolation there is impossible and disinfection impracticable; and until the community sees fit to establish some improved system of dealing with contagion as it there exists, these diseases will continue to steal from these haunts to strike down the cleanly, the provident, and the intelligent.

THE GLANDULAR FEVER OF CHILDHOOD.*

BY HENRY M. JOY, M.D.,

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Under the name of Glandular Fever, E. Pfeiffer† has recently described a condition or disease observed in childhood which he contended was an acute specific fever previously unrecognized. The symptoms as set forth by him, and as a whole concurred in by Filatow,‡ of Moscow, are briefly as follows:

The patient, a child usually between two and four years of age, though occasionally older, is taken suddenly ill, with a rise of temperature to 101° to 103° F., anorexia, and sometimes vomiting, headache, coated tongue, and occasionally illy defined abdominal pain. The most characteristic symptoms are, however, a decided stiffness of the neck with pain on movement of the head, slight difficulty of deglutition, and tenderness in the anterior triangles of the neck. There may at first be some undue redness of the pharyngeal mucous membrane and tonsils, but throughout the whole course of the disease nothing like a definite pharyngitis or tonsillitis.

On the second or third day a swelling develops in the neck which is found

* Read before the Grand Rapids Academy of Medicine.

†*Jahrbuch für Kinderheilkunde*, Band xxiv.

‡ Vorlesungen über Infectious-Krankheiten im Kindesalter.

to be due to an enlargement of from one to three lymphatic glands, which can be felt under the sterno-mastoid muscle and along its anterior border. These glands, which are tender upon pressure, continue to enlarge for from two to five days, sometimes attaining the size of a walnut; then after remaining stationary for a few days they begin to diminish in size, complete resolution taking place in three or four weeks.

With the appearance and during the course of the glandular enlargement the temperature rises somewhat higher than at the onset—104°—and falls by lysis when the enlargement has reached its height.

Almost invariably the glands first affected are those of the left side, and the pain on movement causes the head to be inclined towards the affected side. In the majority of cases, when the glandular enlargement on the left side has reached its height, the glands on the opposite side begin to enlarge and pass through the same stages as those of the left side—namely, period of onset, stationary period, and period of resolution. Pfeiffer asserts that there is inwardly enlargement of the liver and splenic enlargement in more than one-half the cases.

This condition the writer has not observed in cases under his care, though West* and some others corroborate Professor Pfeiffer's statement.

The disease is mild, is never the direct cause of death, but it leaves the child markedly anemic and depressed, complete recovery from which requires several weeks or even months.

Suppuration is extremely rare. Dr. Dawson Williams,† in a most excellent article upon the subject with reports of numerous cases, cites no instance of suppuration having occurred. Filatow, however, in his article to which reference has already been made, reports two cases of suppuration. One of these had reached the beginning of the period of resolution, when the child fell, striking on the side of the neck affected. The fever recurred, followed by a phlegmonous inflammation of the glands previously diseased, and necessitated surgical aid. In the second case suppuration occurred in the second week of illness, for which no cause was obtainable.

The etiology of the affection is as yet very uncertain. Filatow considers the condition as purely idiopathic and makes no attempt to trace out etiological factors. In the cases of which reports have been obtained and in those which have come under my own observation, no causal factors could be found.

The symptomatology of cases observed by the writer followed very closely that outlined by Pfeiffer, Filatow, and Williams. The most distinctive point is the fact that the glandular swelling occurs without apparent involvement of the pharynx or tonsils and in the absence of other disorders ordinarily accompanied by glandular enlargement, as eczema capitis, dental caries, and inflammatory diseases of the ear. The swelling is of a compact, slightly elastic consistency, the skin covering it being sometimes, though not always, slightly reddened but not edematous.

The differential diagnosis presents little difficulty. Adenitis occurring

*_Archives of Pediatrics_, December, 1896.

†_Lancet_, London, January, 1897.

secondarily to the diseases previously mentioned is easily excluded by examination of these parts. The disease might, upon superficial examination, be mistaken for parotitis. The swelling accompanying parotitis occupies precisely the region of the parotid gland, beginning immediately below and in front of the ear, which is pushed slightly upwards, the swelling extending forward over the cheek. The swelling accompanying glandular fever does not involve the face, but is found under and along the anterior border of the sterno-mastoid muscle.

The statement has been made and some evidence put forth to show that the so-called glandular fever is merely an atypical form of mumps in which the lymph glands of the neck are involved without any involvement of the parotid or other salivary glands. This I believe is not correct. A single attack of mumps — bilateral — renders an individual immune from future attacks, while many cases with the symptoms of glandular fever above noted are recorded where the patients had previously suffered from an attack of mumps. The reports of Dr. Park West,* of New York, seem also to refute the idea of the disorder being an atypical manifestation of mumps. He reports an epidemic which began in 1893 and ended in 1896, giving a total of ninety-six cases occurring in children between seven months and thirteen years of age. The characteristic feature was the involvement of the several glands, beginning in a majority of the cases on the left side, accompanied with fever and later with enlargement of the corresponding glands of the opposite side. The spleen was enlarged in about one-half the cases, and the liver in nine-tenths of them. Most of the cases were accompanied by obstinate constipation. In the milder cases there was slight diarrhea, or constipation alternating with diarrhea. The duration of the disease was from nine to twenty-seven days. No instances of suppuration occurred. In none of these cases were the parotid or any of the salivary glands affected, nor was there a case of mumps in the district during the entire time of the epidemic.

As to the pathology of the disease, nothing is at present known.

The treatment is purely symptomatic. No line of treatment seems to alter the course of the disease. The repeated use of laxatives is necessary to overcome the persistent constipation which usually exists, while locally hot applications or an ice-bag are serviceable in lessening the discomfort. After the glandular enlargement has reached its height the use of iodine ointment accompanied by vigorous massage twice daily seems to favor resolution of the enlarged glands, while tonics are indicated for internal administration.

SOME YEARS AGO the Indian Government had to import annually $250,000 worth of quinine, and even that hardly sufficed. After a great many experiments, the cultivation of the cinchona tree was made successful in India, and now there are 4,000,000 trees in Bengal, and every rural post-office in India sells a five-grain packet of the drug for half a cent, while the government makes from $2000 to $3500 a year out of the profits.

**Archives of Pediatrics*, December, 1896.

AMPUTATIONS OF EXTREMITIES WITHOUT LIGATURES.

BY O. R. BARBER, M.D.,

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The amputation of the extremities without the use of ligatures first occurred to my mind several months ago while closing up a wound, by buried sutures, in a breast amputation.

Since then I have used this method in six amputations—all of them amputations occurring in the lower extremities; all of them acute cases, the result of crushing force, from railroad accidents generally, caused by the flange of the car-wheel—and the results have been so favorable in producing a well-rounded, painless stump, the end of bone so padded, that in one case the patient stands and jumps about on ends of stump, alleging that it is absolutely without tenderness.

Other advantages of this procedure are: no blood whatever is lost; there is no oozing; and there is no loss of time, clamping and tying and applying hot cloths to arrest hemorrhage before closing wound, etc.

I use the ordinary rubber roller bandage and a section of rubber tubing wound tightly around the limb above this bandage before it is removed; then after the amputation is made and the flaps nicely adjusted, I take a long piece of catgut (that I know is aseptic, for I prepare it myself), and with a good-sized needle stitch into the muscles, next the bone, at one edge of the wound, and sew back and forth the same as any wound is closed by deep buried sutures; bringing the muscular tissue in snug apposition, but not *too tightly*, and when getting to the outer edge whip the outer and last row of stitches, by the over-and-over method, so that the muscular tissue is smooth, round, and compact. Then the skin is brought over and stitched over all.

The "Esmarch" (in this case the rubber tubing) is then removed; and in no case yet has there been even a drop of blood—the blood-vessels, of course, having been stitched in and around and over, with the closing process.

As before remarked, I do not try to stitch the parts too tightly—just tight enough, so that subsequent swelling, which always occurs after every amputation, will not produce sloughing. If the swelling and tension appear too great afterwards, I apply tincture of iodine freely; and as the class of cases in which I have performed this method of stitching are all of the kind or class (railroad cases) in which all tissues are more or less lacerated and contused, even above the point selected for amputation, it seems to me that in other classes of cases it would be the operation *par excellence*.

I lay claim to originality in this method of closing amputated wounds—that is, I have never seen or read or heard of it, and neither have medical friends with whom I have conversed. It may have been done and probably has, as "there is nothing new under the sun." But these amputations of mine have all been made within the past four months—all of them in the hospitals here; some of them in the presence of the class and outside physicians; and all of them have good stumps, and not a ligature was used in one of them.

DEFICIENT VULVAR DEVELOPMENT IN NEGRESSES.

BY BERNARD WOLFF, M.D., ATLANTA, GA.

The assertion is made by anthropologists that deficient development of the vulva is the rule among the negroid races, and is frequently present, though in a lesser degree, among Mongolians and Malays. It is in the highest degree characteristic of the anthropoid ape, in which not only is the pubic hair scanty, but the mons veneris much reduced in size, without being entirely lost even in the lowest members of the genus (hapale, lemur, etc.).

During an experience of a number of years in a large venereal clinic, patronized chiefly by negroes of pure and mixed blood, I have observed but two well marked examples of arrested development of the vulva. It would be difficult for me to accept as true the statement that this condition was the rule among negroes. In the two instances alluded to, the resemblance to the external genitals of the several orders of apes was so striking as not to fail to impress one with the fact that a stigma of degeneration was here concerned. In both the hairs of the genital region were very scanty, short, and straight, not crisp and curled as usually seen. The mons veneris was inconspicuous, the labia majora nearly hairless, thin, and flat; the labio-crural sulcus obliterated. The labia minora were ribbon-like, uncovered throughout. The clitoris was normal, and the interlabial cleft of the usual length. There was no abnormality of the internal genital organs. Both of the subjects were young (seventeen and nineteen), but fully developed, well nourished, *café au lait* colored negresses, neither of whom had borne children.

Among the many interesting marks of degeneration presented by the negro, this one has not received the attention due it, as representing a clear persistence of type from a pithecoid ancestry.

HYPNOTISM IN MEDICINE.

BY G. A. WILLIAMS, M.D., BAY CITY, MICH.

This interesting subject is referred to under the head of personal magnetism, clairvoyance, mesmerism, and various other names. Mesmer was one of the first exponents of the phenomena in connection with hypnotism. He is said to have refused an offer of 20,000 francs from the government for a disclosure of his secret, but it is asserted that he really told all he knew to any one for 100 louis. Appreciating the effect of mysterious surroundings on the imagination of his patients, he had his consulting apartments dimly lighted and hung with mirrors; strains of soft music occasionally broke the profound silence; odors were wafted through the room; and the patients sat around a cauldron where various ingredients were caused to simmer, "boil and bubble for a charm of powerful trouble." Of course, this was all "hocus-pocus" and merely used through sordid and mercenary motives, but at the present time all well educated physicians fully recognize and appreciate this peculiar power called personal magnetism.

No doubt the voice, manner, conversation and general appearance are important factors in the great majority of cases. This benign influence is only available where the operator can make a favorable impression upon the subject, and is not easily explained. Thus the couplet, "I do not like thee, Dr. Fell, The reason why, I cannot tell." Not only grace and beauty have their effect, but highly intelligent people can always enjoy the effect of occasional irony, sarcasm, and repartee; and what a delightful mental tonic and gymnastic exercise is always found as the result of pleasant and agreeable conversation. Much could be said about this subject of adaptability, and it is certainly worthy of more study and attention by both spiritual and medical advisers.

In the matter of medical treatment, emotional symptoms alone are easily recognized, and no well educated physician would be so unwise as to depend on the conventional prescription or the mere dosing with medicine in the treatment of such cases. On the other hand, when the symptoms are not emotional, but produced by organic disease or poisonous material in the system, we feel quite justified in using various remedies that have been found to be useful by long practical experience. While not wishing to discuss the efficacy of prayer, we certainly have no objection to offer; but inasmuch as the most of us have heads and brains, we should feel guilty of unpardonable negligence if we failed to exercise our reason and judgment in the management of ordinary business transactions. Then, in those cases requiring faith-cure, how much better it would be for the community, as a matter of example and morality, if these good people would consult an educated physician or clergyman, instead of calling upon some traveling ignoramus styling himself a magnetic physician or divine healer.

Professor Riçord.—A good story is told of this celebrated surgeon. In a little town near Orleans there lived, more than fifty years ago, a celebrated bone-setter, who cured all the ills of humanity, and who enjoyed a great reputation in that country; no doctor had ever attempted to supplant him. One day, however, a young doctor, fresh from the learned faculty, arrived in the town and installed himself close by the bone-setter. It was not long before our *confrère* found out that his diplomas were of little use in competition with his rival. One day he was called to see the blacksmith, who was very ill, and after a proper examination he prescribed for him according to the rules of his art, and said that he would return the following day. That same evening, however, the bone-setter stepped in and told the patient that if he took what had been ordered for him he would be dead before the moon set a second time. Needless to say, the bottles were thrown out, and the charms of the medicine man substituted. The blacksmith got well. Exposed to constant affronts and a thousand and one annoyances, our unfortunate doctor determined to abandon the struggle, and returned to Paris with only five shillings in his pocket. He died a few years ago, leaving a colossal fortune, a brilliant renown, and a celebrated name, and a statue has been erected to him opposite the hospital where he worked the greater part of his life in the interest of humanity and science. His name was (?) Ricord.

IN MEDICAL CONCLAVE.

DETROIT ACADEMY OF MEDICINE.

At the regular meeting of the Academy, held February 22, 1898, Dr. E. H. Sargent read a paper entitled "The Work of the Medical Examiner of the Health Office." The reader gave a very graphic description of the many puzzling cases coming before the medical examiner in which an accurate diagnosis must be made at once so as to prevent possible spread of contagion. The work consists chiefly in the diagnosis of doubtful cases of diphtheria, scarlet fever, measles, and chicken-pox. Diphtheritic cases are now determined solely by the bacteriological examination and cause less trouble than formerly; but the exanthemata are often most difficult cases to differentiate, especially the separation of some cases of chicken-pox from smallpox.

Incidentally the examiner must be a man of tact and able to do this work without friction, for he often has to question the diagnosis of the attending physician, and perhaps disagree entirely with him, or he may put a placard on a house when the inmates strenuously object, or cause decided annoyance.

A description of the epidemic of scarlet fever in the eastern part of the city during the last six months was given, and of a contagious erythema closely resembling the scarlet fever but without constitutional disturbances that accompanied the epidemic.

Among the points brought out in the free discussion of the subject was one taught in Vienna as an aid in doubtful cases of scarlet fever, viz., the presence of an icteric hue in portions of normal skin surrounding the rash when the patient is examined in the sunlight.

The need of a contagious hospital which contains suspect wards, to be owned by the city, was also urged as a necessity.

WAYNE COUNTY MEDICAL SOCIETY.

Those attending the meeting held February 17 at Delray were delightfully entertained by Dr. F. J. Clippert, the genial Mayor of that town. Dr. W. F. Metcalf read the regular paper of the evening on the "Office Treatment of Gynecic Cases." His dissertation was well received, and widely appreciated.

Dr. Hal C. Wyman read a report of a case of a wound of the pericardium and pleura treated by suture, with recovery of the patient.

Dr. W. H. Poole read the report of an unusual case of rhinolith.

After the regular programme Dr. Clippert invited the Society into the dining-room, where an elaborate spread had been prepared. There followed toasts, music, and anecdotes, after which the Society moved a vote of thanks to the genial host and adjourned.

At the meeting of the Society held February 24 Dr. J. A. Clark read an able paper on "Anomalies of Albuminuria," maintaining these two propositions: (1) That many cases of disease of the kidney, with actual structural changes, exist without albuminuria; (2) that there may be present in the urine

for long periods albumen and casts without actual kidney disease. He proceeded to prove this statement by citing cases of both classes that had come under his own observation. One of his cases was of great interest to the Society from the fact that the patient has had for many years an average of about five grammes of albumen to 1000 cubic centimeters of urine—nearly the maximum amount. The patient has been to Europe and seen some of the most prominent physicians in England, France, and Italy, but there has been no change in the urine; yet the patient is apparently in good health at present.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

At the regular meeting held Monday evening, February 14, Dr. F. D. Summers read a paper entitled "Surgical Technique in Gynecology." He attributed the success of all surgical operations as dependent upon the thoroughness of the asepsis. The same precautions should be used in minor operations as in those of greater magnitude. The writer referred to Dr. Kelly, of the Johns Hopkins University, who states as a result of his experiments that solutions of bichloride of mercury as strong as one to five hundred are not germicidal after immersion of the hands from four to five minutes. It only inhibits further growth until the salt is removed.

A *résumé* of the method employed by surgeons preparatory to an operation was given. This involved the thorough scrubbing of the hands with soap and water, immersion of them in an eight-per-cent. alcohol solution, followed by plunging them in a bichloride of mercury solution one to five hundred for one minute. Assistants in the operation should go through the same process.

The preliminary treatment of the patient was also mentioned. As to the ligatures employed in operations the writer said that for internal abdominal work braided silk was the best, while properly sterilized catgut was employed by him for extra abdominal work.

Dr. Carstens in discussing the paper said that cleanliness was the *sine qua non* of success. Instead of using bichloride of mercury he had of late been using chlorine gas by the method of liberating it from calcium chloride and sodium carbonate. He had employed catgut prepared by dry sterilization in preference to kangaroo tendon.

Dr. E. L. Shurly was glad to know that gynecologists were using chlorine. He thought it was the most efficient germicide we have.

Dr. Shurly reported a case of laryngectomy which he had performed at Harper Hospital, and exhibited the larynx. The surgical procedure employed in the operation was reported in an interesting manner. Tracheotomy was first performed, followed by laryngectomy. The inhaler devised by Dr. Gailey, of this city, was employed in administering the anesthetic. Its advantages were highly commended by Dr. Shurly.

The meeting of February 21 was held at Harper Hospital. Dr. A. M. Phelps, of New York, gave a most interesting clinical demonstration of his method of operating in club-foot. Supercorrection of the deformity forms the intrinsic feature of his operation. The demonstration attracted a large and interested audience.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

ZOOPHILISM AND ANTIVIVISECTION.

Zoophilia, a morbid love of animals, has long been recognized among reliable stigmata of the degenerate, so that alienists have come to regard with distrust those who develop towards animals a superfluous sentimentality. Even so unreliable a critic of decadent conditions as Mr. Max Nordau, in commenting upon the degeneracy of M. Maurice Barrés, tells us that gentleman confesses that when he wishes to edify himself, he runs "to contemplate the beautiful eyes of the seal, and to distress himself with the sufferings of those tender-hearted animals." The origin of this morbid sentiment is probably somewhat different to that of those stigmata upon which the Lombroso school have commented, most of which being atavistic in origin are reversionary in type. Man is naturally opposed to all animals against which he has had to struggle for existence. No pity is felt for the snake or the tiger. The cruel and hunting instincts might be regarded as natural reversionary traits. The instinct for the chase is not deeply removed, and when the "Red Gods call," it is easily revived in most of us. If there is to be any reversion, it might naturally be expected along lines of last descent. It is not, however, to an origin of this kind Zoophilism is to be attributed. It is due to excessive emotionalism, to sympathy pathologically intensified. It is promoted by such natural absence of the genuine sentiment of love as prompts its possessor to indulgence in inordinate sympathy and tenderness to animals, to compensate for its want. It is for this reason that the sour old maid, the embittered misanthropist, the cruel inquisitor, the bloodthirsty revolutionist, furnish the best types in which overregard for animals finds its climax.

This significance of Zoophilism and its relation to degeneracy have recently been brought to notice by the valuable critical study of Byron and Sir Walter Scott, which Dr. James G. Kiernan contributes to the last number of the *Alienist and Neurologist*. In describing the childish eccentricities of Byron's grandfather, he mentions that the old man, when tired of sailing toy gunboats on an artificial lake, would throw himself on the ground and gossip with the crickets, whom he loved far more than he did his grandson. When the crickets were troublesome he used to whip them with a wisp of hay. Here

was a striking illustration of zoophilism—that morbid love of animals which, coexisting with misanthropy, constitutes the antivivisectionism of the degenerate of to-day.

A striking illustration of this form of degeneracy, this combination of misanthropy and zoophilism, was furnished by a well known congressman during the recent vivisection agitation in Washington. When it was explained to his zoophilistic mind that the discovery of diphtheria antitoxin, which had resulted in saving the lives of thousands of children, had depended primarily on animal experiments, he is said to have replied that the world would have been much better to-day had those children been allowed to die rather than that the saving of life should have been accomplished by the destruction of innocent lower animals. Would this degenerate zoophile, had his own child been choking to death, have refused to accept the therapeutical blessings originating in animal experimentation? Can it be that this man is married or has children of tender years? Is he a human brother, or is he some wolf-man? Does he represent a constituency of intelligent human beings? He must come from some arid land, and have for companions the prairie-dog, the jack-rabbit, and the rattlesnake, and of these he must think more than of his human comrades.

Such sympathetic soft-heartedness as that which would lead a father to kill his own child in order that a few lower animals may not die is as immoral as the tenderness of a father who deprives his own children of bread in order to give it to unmeritorious tramps. Sympathy and cruelty, in their ultimate forms, seem almost akin.

EDITORIAL NOTES.

Has Influenza Become Endemic.

In England the country is said to be full of influenza. The disease assumes three types: That which specially attacks the respiratory organism; that which singles out the nervous system; and that which operates on the digestive organization. The present epidemic is said to be remarkable for the large proportion of cases which show symptoms of profound disturbances of the digestive system. The symptoms are in some cases so severe that some hesitation is shown in rejecting a diagnosis of typhoid fever. The difficulty experienced on this side of the water of ridding ourselves of the term grippe, as applied to catarrhal conditions, shows one of two things—either that influenza is more or less endemic, or that our minds have become so dominated by the conception of its ubiquity as to confuse us as to the sphere of its actual relations.

In Germany there is a compulsory system of accident insurance in vogue. German workmen, who have been wounded by accident, have been paid during the past eleven years, over and above their wages, nearly $120,000,000. The claim is made that the employers in reality pay this enormous sum which the workmen thus secure.

ITEMS AND NOTES.

Mr. Herbert Spencer is suffering from heart trouble.

The average yearly income of physicians in New York City is said to be only $1500.

A pint of beer at luncheon is to be allowed each student of the University of Aberdeen.

The death-rate of London two hundred years ago was eighty; now it is less than eighteen.

The most highly decorated member of the profession in England is said to be Sir William McCormack.

Professor Tashenberg, of Halle University, the well known zoologist, has recently died at the ripe age of eighty.

The villages on the banks of the Yang tse-Kiang river, in China, are suffering from the ravages of the Plague.

The semi-annual meeting of the Sioux Valley Medical Association was held in Sioux City on January 20 and 21.

Of late years there has been a considerable falling off in the number of students matriculated at Glasgow University.

The epidemic of influenza, at present raging in London, is on the increase, while that of diphtheria is declining.

An epidemic of some disease, resembling in its chief symptoms trichinosis, but which is pronounced not to be such, is prevailing in Berlin.

Dr. Carl Gunther, the celebrated bacteriologist of Berlin, has been honored by the bestowing upon him of the title of Professor.

The late Professor Zakharin, the Russian physician who attended the late Czar during his last illness, has left a fortune of 3,000,000 roubles.

There is a good deal of complaint among the medical men of Illinois on account of the laxity of the authorities in enforcing the medical laws.

There has lately been patented in Europe a machine called a divnometer, which is said to gauge the psychic force of the individual on whom it is used.

Professor Lenard, of Heidelberg, who first discovered the cathode rays, has received from the French Academy of Sciences its prize of 10,000 francs.

It is proposed to provide free courses to physicians in Berlin, in which they shall be instructed in all the laws bearing upon the profession and its practise.

In 217,000 prescriptions, written in Chicago, Philadelphia, Boston, Denver, San Francisco, New Orleans, and St. Louis, 11.25 per cent. were for proprietary articles.

Dr. Samuel Pozzi, of Paris, has recently been elected to the French Senate from Dordogne. He is the author of the well known "Treatise on Gynecology."

A dispensary has been opened by the Missouri University at Columbus, Mo., for the benefit of students. All who apply will be treated free, whether rich or poor.

Dr. Wm. H. Welch, of Johns Hopkins Hospital, has been appointed by the Governor of Maryland a member of the State Board of Health, and has accepted the position.

The city of Bloomington, Ill., has been left, by the will of Ex-Chief Justice John Scott, of that city, a $2,000,000 bequest for the purpose of founding and maintaining a hospital there.

After fifty-seven years of continuous service as a nurse in the Salpêtrière of Paris, Mlle. Marguerite Botard has had bestowed upon her, by the French Government, the cross of the Legion of Honor.

The London *Times* reports terrible distress among the peasants of the interior provinces of Southern Russia, caused by famine. Typhus and other diseases are making rapid headway among them.

The *Scientific American* contains an account of a new device called the Fluorometer, to be used in the taking of *x*-ray pictures where absolute accuracy of situation of any foreign substance is necessary.

Osler is reported to have made the following remark: "Know Syphilis in all its manifestations and relations, and what remains to be learned will not stretch the pia mater of a megalocephalic senior student."

Dr. Samuel C. Busey, of Washington, who was elected to deliver the address on State Medicine before the American Medical Association, in Denver, has resigned the appointment on account of ill health.

It has been estimated by a high authority that the mortality rate, among persons who are without an occupation, is more than two and a half times greater than among those who are employed in some occupation.

The Audiffred prize, offered by the French Academy for the best scientific essay on the cure of tuberculosis, was not awarded this year. Only a few essays were sent in, and none of them were considered of enough value to make the award.

Members of the American Medical Association who purpose attending the coming June meeting, to be held at Denver, may expect the usual exorbitant hotel rates. Already the managers of hotels in that city have refused to reserve single rooms unless occupied by two persons.

THE COMMITTEE of the Mississippi Legislature, appointed to investigate the yellow fever of last summer, has reported. It found that the fever originated at Ocean Springs, Miss., and that it was brought to this country from Guatemala and not from Cuba as was generally supposed.

ON THE proposal of Professor Virchow, the first Moscow prize, established by the municipality of Moscow, and to be awarded at each recurring international congress, was bestowed upon Henri Durrant, the founder of the Red Cross Society, in recognition of his inestimable services to humanity.

THE PAPER entitled "The Personal Reminiscences of Syme," by Dr. Donald Maclean, having met with cordial approval by many of our readers, the author has been persuaded to favor our columns with another article, entitled "The Surgical History of Professor Syme." The intention is to describe and discuss the position occupied by Syme, and the influence exerted by him on the progress of surgery. The first instalment of this paper will appear at an early date.

AGED PARENTS.—Dr. R. D. Moffat, of Toronto, sends the following information bearing upon an item in THE MEDICAL AGE upon this subject: "The 'aged parents' of the Toronto case have been married seven years; during this period they state that three children have been born, but no physician has as yet come forward to confirm their story, nor has one been found who will say he acted at any of these confinements, and this in spite of a close search and in the face of the notoriety given to these people. They have shown children, claiming that they were the infants interested; their looks, however, belied their ages, and even unprofessional eyes detected this point. There is little question that the children were born of other parents, but the motive for this vagary has never been made public. One thing is certain: this case is so very mysterious that it is not to be depended upon as a record case in any medico-legal aspect, and can only be used as an illustration of the peculiar foibles that people will sometimes indulge in."

INFLUENCE OF WEALTH ON MORTALITY.—On the influence of wealth on mortality, the Breslau statistician, Neefe, publishes an interesting paper in the *Zeitschrift für Hygiene und Infektions Krankheiten.* As a criterion of the means, the amount of the rent paid was taken. In 1896 there died of every 1000 living persons who paid a rent up to 300 marks, 20.7; with a rent of 301 to 750 marks, 11.2; the rent ranging between 751 and 1500 marks, only 6.5; the average being 17.6 persons. While according to these figures the mortality of the Breslau poor population is three times as large as that of the rich, it is in reality much larger, because the deaths not included therein (servants, journeymen, persons who died in the hospitals, etc.) may be assumed to belong almost exclusively to the first class. The greatest difference in the mortality was, of course, shown by the babies; more than half of those born alive belonging to the poor population died in babyhood, while the deaths of babies of the rich amounted to only one-sixth.

NEW PUBLICATIONS.

A MANUAL OF OBSTETRICS.

That this manual once discovered a vacant niche in obstetric handbook literature and has since successfully maintained its title to the position, notwithstanding the many meritorious kindred works which have entered the lists in competition, is evidenced by the fact that since its first appearance in 1882 six editions have found a ready market, and the seventh is now before the profession for judgment. Any book which stands the test of years and succeeds in passing the limits of the original output may, in the majority of instances, be considered worthy of place among the standard works which find the way onto the chosen shelf of the library bookcase. The success of this manual is due to inherent merit, manifesting on every page the mark of a master-hand.

In the present edition former errors and omissions have been corrected, and some additional matter has been introduced, the chapter on Puerperal Septicemia has been rewritten, and greater emphasis placed on the importance of aseptic midwifery.

There is probably no safer elementary work on obstetric science which can be placed in the hands of the student of medicine, or which will prove of greater satisfaction to the general practitioner as a rapid memory refresher. W. P. M.

A Manual of Obstetrics. By A. F. A. King, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., and in the University of Vermont, etc., etc. Seventh edition, with 223 illustrations; pp. 574. Philadelphia and New York: Lea Brothers & Co., 1898.

THE TWENTIETH CENTURY PRACTICE OF MEDICINE.

The thirteenth volume of the Twentieth Century Practice of Medicine deals with the infectious diseases. An extensive field is traversed. A consideration of Ptomaines, Toxins, and Leucomaines leads to a description of a large number of toxemias and autotoxemias. The food poisons are elaborately commented upon, and the information accorded the reader is encyclopedic in character. This is followed by a thorough discussion of the question of immunity and serum treatment. The modern spirit in which this is written reflects great credit on the writer, considering the kaleidoscopic changes to which these questions are subject.

The remainder of the volume treats of the water-borne diseases and the acute infectious diseases. The subjects are all minutely studied. Dr. Dawson Williams' chapter on the duration of the periods of incubation and infectiousness, in acute specific diseases, is a contribution of the highest value.

The work is to be completed in twenty volumes, and will constitute an enclycopedia of medicine, embodying the highest achievements and fullest knowledge of the time. To the general medical reader the work is most valuable, and to the medical teacher it is simply indispensable.

Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by Thomas L. Stedman, M.D., New York City. In twenty volumes. Volume XIII: Infectious Diseases. New York: William Wood & Company, 1898.

A TEXT-BOOK IN SURGERY.

The new edition of Wyeth's Surgery will be welcomed by all familiar with the excellent features which prevailed in former editions. Since the last edition many advances have been made in surgical progress. The present work is conceived in the most modern spirit, and nothing is omitted to make it a standard of excellence in surgical text-books. The work is profusely illustrated, and the publisher has spared no expense in making this volume complete. The present edition contains nearly 300 more illustrations than its predecessor. Skiagraphy is especially well represented. It may safely be predicted that this text-book will establish for itself an impregnable reputation among students and practitioners of surgery.

A Text-book in Surgery, General and Mechanical. By John A. Wyeth, M.D. New York: D. Appleton & Co.

THE AMERICAN SYSTEM OF PRACTICAL MEDICINE.

The American System of Practical Medicine approaches completion. The third volume is concerned, for the most part, with diseases of the alimentary tract and abdominal cavity. Each article being a masterpiece, it seems invidious to indicate particular praise to the contribution of any individual author. Each article is pervaded by the true scientific spirit. An especially valuable article is that contributed by Dr. J. E. Graham, on Diseases of the Liver. The article on Cretinism and Myxedema is exceedingly well illustrated and graphically portrays the effect of the thyroid treatment of this disease. The whole work is one which it is impossible to praise too highly, and its utility to the general practitioner will make it an indispensable adjunct of his library.

A System of Practical Medicine. By American Authors. Edited by Alfred Lee Loomis, M.D., Late Professor of Pathology and Practical Medicine in the New York University, and William Gilman Thompson, M D., Professor of Medicine in the New York University. To be completed in four imperial octavo volumes, containing from 900 to 1000 pages each, fully illustrated in colors and in black. Volume III: Diseases of the Alimentary Canal, Peritoneum, Liver and Gall Bladder, Spleen, Pancreas and Thyroid Gland, Chronic Metal Poisoning, Alcoholism, Morphinism, Infectious Diseases Common to Man and Animals, Miscellaneous Subjects. For sale by subscription. Per volume, cloth, $5.00; leather, $6.00; half morocco, $7.00. Philadelphia and New York: Lea Brothers & Co., Publishers, 1898.

AIDS TO ASEPTIC TECHNIQUE.

On the principle that "Truth can never be confirmed enough though doubts did ever sleep," there is nothing uncalled for in this unostentatious little book. The general principles of asepsis are fortunately all but universally assimilated in the medical and surgical mind. The details of it, however, are perpetually changing. There are a number of facts and suggestions in the book which will be new to many. As a practical manual of nursing this work should find a place in every training school.

Aids to Aseptic Technique. By A. D. Whitney, M.D., Assistant Surgeon to the German Hospital, Philadelphia. Price, $1.00. Philadelphia: J. B. Lippincott Company.

SEXUAL NEURASTHENIA.

This text-book, which is now in its second edition, covers the ground in a manner that is at once clear and concise and presents a good review of a very extensive field of study. True spermatorrhea, involuntary emissions, impotence, sexual excess, reflex nervous symptoms from morbid conditions of the glands and urethra, the effect of nervous and other diseases on the genital function, have been carefully considered, as has also sexual hygiene. A large number of interesting and instructive cases are cited, and much space is given to treatment.

Sexual Neurasthenia (Nervous Exhaustion): Its Hygiene, Causes, Symptoms, and Treatment. By Geo. M. Beard, A.M., M.D. Edited with notes and additions by A. D. Rockwell, A.M., M.D. New York: E. B. Treat & Co.

A STRANGE MALADY.

Pathological vagaries have been added to by a strange case reported by Dr. R. D. Mason, of Iowa. He had a case simulating typhoid. The abdomen was tympanitic and exhibited tenderness in the region of the ileocæcal valve. A dose of calomel removed several lemon seeds. The condition continued unchanged, further purgation was resorted to, and a large number of lemon seeds were brought away, some of which had sprouted to over one-eighth of an inch in length. These seeds had been in the intestines about two weeks. The presence of sprouting seeds in the nose and ears are not unknown, but an intestinal lemon grove is something which has hitherto been unrecorded either in the annals of horticulture or medicine.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Suprapubic Cystotomy.

Prof. John Wyeth (*New York Polyclinic*), in speaking of suprapubic cystotomy, says:

1. The parts about the field of operation, and where the urine might flow, should be shaved.

2. The patient should rest in full extension upon a table.

3. It is of advantage to have the hips higher than the shoulders, as the weight of the intestines will be thus removed from the bladder.

4. Rectal distention is never necessary.

5. Water is the best thing with which to distend the bladder.

6. The longitudinal incision beginning one inch above the margin of the symphysis pubis and two inches long, is best.

7. Arrest hemorrhage as operation proceeds.

8. The size of the incision in the bladder must be regulated to suit individual cases.

9. The peritoneum should be dissected up from the bladder, and if cut or torn should be sutured at once with catgut.

10. Close the opening in the bladder when the case will admit of it by using catgut and Lembert suture.

To Pack a Cavity with Gauze.

When you wish to pack a large cavity with gauze, a good way is to fit a single layer or sheet of the material all round against the walls of the space, allowing the edge of the gauze to remain outside. You then have a gauze bag lining the cavity. Into this bag you may pack as much gauze as may be necessary for pressure, or for thorough absorption of the discharges. When the time comes for removing the packings you will find that by first removing the inner filling of the gauze bag, and last of all the bag itself, there will be comparatively little pain, little hemorrhage, and little derangement of the tissues.—*International Journal of Surgery.*

The Radical Cure of Hydrocele.

Etienne (*British Medical Journal*) has formulated a treatment for simple hydrocele of the tunica vaginalis by puncture and injection of corrosive sublimate at a strength of 1:1000. Little or no pain is caused by the injections, and the fluid disappears in about a fortnight. Two injections of sublimate without alcohol follow the puncture, and lastly, a boracic solution is injected. Twenty-seven cases were treated by Etienne in this manner, and all seem to have been successful.

MEDICINE.

Diet in the Treatment of Inebriety.

For a long time persons have urged that diet was the real remedy for inebriety. Yet, when it was applied in certain cases, no better results were obtained. The drink symptom remained. Occasionally the change from a meat to a grain diet, or the reverse, was followed by the subsidence of all desire for spirits. In a continuous drinker a general diet of both meats and grains appears to meet the demands of a disordered nutrition and semi-starved condition better than any special articles of food. In the periodic cases an albuminous or proteid diet is often decidedly injurious. In some cases an intense craving for meat or for starchy foods precedes the drink paroxysm, which subsides when the craze breaks out. The intimate relation between foods and the drink paroxysm is very prominent in many cases.

In some cases excessive meat eating is associated with great irritability and sensitiveness of the brain and nervous system. The change of diet is followed by a great improvement of mental activity. It would appear from a study of many cases that so far no general rule can be found, and each case must be studied from the facts of its history. Thus, in some cases a meat diet is literally poisonous, and its removal is the first essential for a cure. Again, a grain or fruit diet is clearly injurious, and more rapid recovery follows a change. In all cases states of starvation and anti-intoxications exist, the removal of which is of equal importance to that of spirits. The study of the diet brings out many unsuspected causes, which require removal and treatment before a cure can be effected.—*Health.*

"A Brief for the Cigarette."

The paper cigarette, against which so much has been said and written, has an able champion in W. H. Garrison, whose address on the subject before the Medico-Legal Society at its last meeting attracted considerable attention. The current issue of the *Medico-Legal Journal* contains the full text of this paper, entitled "A Brief for the Cigarette," and in it Mr. Garrison has brought a strong array of facts to shatter what he termed the "unreasonable prejudice which at present exists against the paper cigarette," and was certain that the investigations of professional men of science would only emphasize the results at which he had arrived.

The annual output of cigarettes for 1897, he said, was four thousand millions, and if it is the malign and wicked thing which its opponents claim it to be, its manufacture and sale should be suppressed as dangerous to the public health. Apparently all the agitation against the fragrant cigarette was born in prejudice like that other similar fiction, "chloroforming" or "poisoning from canned meat."

Prof. H. W. Wiley, chief chemist of the United States Department of Agriculture, at Washington, analyzing that brand of American cigarettes which is used by more than one-half the cigarette smokers of the country, finds that a cigarette is made of 1.0926 grains of tobacco enveloped in a wrapper of paper

weighing 0.038 grain. In other words, one pound of tobacco will furnish fillers for 416 cigarettes, and one pound of cigarette paper will serve to envelop 12,000 of these fillers. One twenty-sixth of an ounce of tobacco in a paper one by three inches in size and weighing seven one-hundredths of an ounce is a cigarette. Just tobacco and paper!

What kind of tobacco? Prof. Willis G. Tucker, of the Albany Medical College, and analyst of the State Board of Health, says in his ninth annual report: "Cigarettes are generally made from tobacco of good quality. Sensational statements that they are prepared from the filthiest tobacco and dirtiest refuse are not worthy of credence, and can be easily refuted."

Professor Wiley says that in many samples purchased in the open market he failed to find any trace of arsenic or opium or any of its active principles. Professor Tucker prepared for his work of analysis by searching the medical text-books and journals, and couldn't find even a statement that these foreign substances were employed. Dr. F. G. Payne, State Chemist of Georgia; Profs. Robert and Albert M. Peter, of Lexington, Ky.; Prof. James Dewar, of Cambridge; William Odling, of the University of Oxford; and C. Meymott Tity, of "Forensic Medicine," London Hospital, join with those named in pronouncing the American cigarette free from opium or arsenic.

Then comes the third bugaboo—that of inhalation of the smoke—which called forth an answer from Sir Henry Thompson, who said that the cigarette was the least injurious form of smoking, and Meyer Dutch wrote that "the inhaled smoke rarely passes beyond the bronchi, very little ever entering the air vesicles."

Thus science lays another robust falsehood in the dust. The cigarette smoker may henceforth enjoy his rings of smoke in peace of mind.—Cyrus Aldrich, in *Scientific American.*

Rumination in Man.

Merycism or rumination in a human subject has long been known, and those addicted to the practise are known in France as Merycoles. A considerable number of cases have been collected, and M. Nattan Larrier has recently published an instructive memoir on the subject in the *Gazette des Hôpitaux.* There is no certain evidence as to the influence of sex. Certain authorities make out that merycism is most prevalent in the male, but since that opinion has been repeatedly copied in text-books, Ludwig and several other observers have recorded numerous cases where it occurred in women. According to five independent reports, merycism may be hereditary. Bouchard, of Ghent, has published the clinical history of a ruminating family. Out of ten living members, eight ruminated, namely, two brothers and an aunt, the grandfather and four grandchildren.

Close scrutiny into individual cases, however, tends to show that merycism may represent an extreme form of eructation or else be evidence of mental disease. It may be voluntary or involuntary, the latter type often representing the first stage of what becomes the former. No special change in the chemistry of the saliva and gastric juice has been proved to be associated with

merycism, but human ruminants are often dyspeptics with sensory-motor phenomena. Involuntary merycism, at least in its earlier stages, is specially prevalent amongst dyspeptics troubled with neuroses. Voluntary rumination, as a bad habit, is a practise observed most frequently amongst idiots, lunatics, and degenerates—a true intellectual perversion, in fact, where a man wishes to be like a cow. Yet voluntary rumination, on the other hand, may be the result of imitation in fairly sane subjects. On that account it is relatively common amongst children.

The mechanism of rumination is the same in man as in animals that naturally ruminate. No malformation or lesion of the stomach or esophagus has been detected in any case. Treatment, to be successful, must in every case depend on management of one of the conditions always concomitant with merycism. Hence the dyspeptic ruminant must be treated as a dyspeptic, the neuropathic subject as a neuropath; and these types are found the most satisfactory for treatment. In children the condition is often traceable to imitation. M. Nattan Larrier holds that the ruminating child must not be spoiled by the sparing of discipline, but believes that suggestion might prove a quicker and more thorough therapeutic agent. It is certain that it would be preferred by the patient. When distinct mental disease is present, attempts at cure are seldom successful, and some idiots are very clever at bringing up their food the moment they are no longer watched. They can retain it for hours till they desire its return to the mouth.

PATHOLOGY AND HEMATOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,
Microscopist to Harper Hospital, Detroit.

The Pathognomonic Value of Lactic Acid.

Dr. Boas, who, together with Professor Ewald, a few years ago did so much in revolutionizing our knowledge of stomach diseases, now makes some very interesting statements regarding chemical investigations in gastric diseases, especially in gastric carcinoma, which are presented in a clinical lecture in the International Clinics, Volume IV, 7th series. Dr. Boas presents a case where after a test-meal lactic acid is present, together with an absence of free HCl, which a year or two ago was thought by many to be pathognomonic of carcinoma. He excludes carcinoma, as the symptoms of chronic gastritis have existed too long, the course of the disease is too slow, and there is an absence of constitutional involvement and of anything like cachexia, and makes the diagnosis hypertrophic pyloric stenosis.

In summing up the much discussed question of the absence of free HCl in gastric carcinoma, Dr. Boas says: "I consider that my experience in stomach diseases justifies me in laying down three maxims: (1) The presence of free HCl speaks against carcinoma, though of course only when other symptoms are lacking too. If there is an epigastric tumor, emaciation, and beginning cachexia, then it is of no significance. (2) The absence of free HCl estab-

lishes the diagnosis of cancer if two of the classical symptoms of cancer, emaciation and tumor, are present. It makes the diagnosis of cancer extremely probable if, besides beginning cachexia, there are symptoms of stenosis of the pylorus running the clinical course that a cancer in this region usually does. (3) For the differential diagnosis of gastric ulcer from cancer, the presence of free HCl where no tumor can be discovered speaks for ulcer, while the failure to find free HCl is against the diagnosis of ulcer."

After considering the sources of lactic acid and its tests, he concludes as to the significance of lactic acid in the stomach contents: "I must say at once it has no mystic meaning, and, much as has been claimed for it in the past, it is not of itself pathognomonic of any condition. Originally I hoped that it was going to prove an absolutely pathognomonic symptom of cancer, but unfortunately my hopes have not been fulfilled. I hoped further that it would make an early diagnosis of cancer possible. By early diagnosis I mean one made before the presence of a tumor could be demonstrated, though of course a good-sized tumor might exist. Despite the fact, however, that lactic acid has lost its pathognomonic significance in cancer cases, it still remains the surest symptom we have in cases where no tumor is palpable. Where only absence of HCl is noted the case remains extremely doubtful unless other symptoms are present, but where there is also noted the presence of lactic acid, then there is more than a strong suspicion of the presence of cancer. The clinical course of the affection must supply the other symptoms that confirm the diagnosis of cancer. The early diagnosis of gastric cancer is then not yet possible. The development of cancer nodules in their first stage, when operation would be so favorable, gives either no symptoms or no characteristic ones."

Dr. Boas then discusses the ferments, motility of the stomach and its resorptive power, concluding his lecture as follows: "What shall I say, then, with regard to the present position of the diagnosis of stomach diseases by chemical investigations? Only this, that so far careful investigations have brought us no pathognomonic symptoms, that we must still consider carefully all the circumstances of the case in order to make a proper diagnosis, and that experience in the handling of cases has not yet been superseded by ready-made tests that make the diagnosis for us."

The Gonococcus.

Dr. Henry Heiman, of New York, who has been conducting an extended series of experiments with the bacilli of gonorrhea, has summarized his work as follows:

1. The gonococcus can be kept alive in certain liquid culture media as long as eighty-two days.

2. The gonococcus can be transplanted probably indefinitely from one culture medium to another. I succeeded in transplanting it twenty-five times.

3. Fifteen cases of chronic urethritis, pronounced on clinical evidence cured, were found to be entirely free from gonococci, as judged by cover-glass preparations and cultures.

4. The statements of Strauss, Pescione and Eraud that the gonococcus

occurs in the normal urethra is not satisfactorily proven in their published experiments.

5. Rectal gonorrhea can often be detected by suitable examination. In two out of four cases of my own, bacteriological diagnosis was possible.

6. Gonorrheal arthritis may be a sequela of ophthalmia neonatorum.

7. My experiments on the inoculation of the eyes of new-born rabbits and kittens with gonococci gave negative results.

THERAPEUTICS.

Ichthyol in Tuberculosis.

Fraenkel (*Therap. Wochenschrift*) has treated thirty cases of tuberculosis with ichthyol, and after an experience of three months believes that the remedy acts much more energetically than creosote. He commences with two grammes per day, increasing to four at the end of a week. The cough, expectoration, and night sweats in particular, have been favorably influenced. It may be given in the form of the capsules, or as keratin-coated tablets. Further evidence of its utility is given by Dr. Williams, who, after using the remedy for eight years in daily doses of 20 to 100 minims, considers that it should rank not next to creosote but above it. In a large percentage of the cases he has observed a gradual involution and degeneration of the bacilli, with a reduction in number and their final disappearance.

Oxytuberculin.

Dr. E. H. Smith, of Santa Clara, California (*Journal of the American Medical Association*, Feb. 19), criticizes the testimony in favor of this remedy. Living within a few miles of the producer of oxytuberculin, he had opportunity to witness its effect in a number of cases. In but one case had there been any apparent benefit, and that was a case of asthma, and no positive evidence of tuberculosis was present. This case had been reported "cured." No such results are obtained outside the clinical department of Professor Hirschfelder and his immediate friends.

Dr. Smith concludes that there seems to be much assertion but little evidence that any one has been cured by oxytuberculin rather than by natural forces inherent in the human body, aided by good food and nursing.

Pyramidon.

The value of this new form of antipyrin is confirmed by the results announced from v. Limbeck's clinic, where it has been tested in a hundred cases of various diseases. Its antipyretic effect in chronic tuberculosis was highly satisfactory in thirty-two cases out of forty, and it was so successful in nine cases of articular rheumatism that it is recommended as a substitute for salicylic acid whenever there is intolerance. The fever not only subsided but it seemed to have a specific effect on the rheumatism (1.5 grammes in frac-

tional doses during the day). Its analgesic effect was also striking in migraine, trigeminus neuralgia, and other nervous pains, for which it is especially recommended. The effect is slight in chronic rheumatism, negative in malaria and nervous tachycardia, and there was intolerance in two tuberculous patients.—*Wiener Klinische Wochenschrift.*

Faroform Powder.

This is recommended by the Crown Pharmacy, in Berlin, as a disinfecting remedy against perspiring feet. It is a white powder with a faint thymol odor, composed of 0.13 per cent. of formaldehyde, 0.1 per cent. thymol, 33.44 per cent. oxide of zinc, and 65.27 per cent. of starch. Applied to wounds and purulent secretions, a great disinfecting power is said to be attained in consequence of the splitting off of the formaldehyde.

Resinol.

Resinol, on account of its antiphlogistic and antiseptic qualities, has been found of great service in strangulated hemorrhoids and in acute proctitis. It is used by hollow suppository, and promptly relieves pain.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,

Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

Laparotomy in the Treatment of Uterine Carcinoma.

At a recent meeting of the Belgian Gynecological and Obstetrical Society, Jacob of Brussels (*Centralblatt für Gynäkologie*, No. 6, 1898) voices his views regarding the surgical treatment of uterine malignancy in no uncertain tone. The sad results following vaginal hysterectomy for carcinoma, he says, demand renewed and persistent efforts for the development of methods of radical treatment, as far as radical cure in these conditions by means of surgery can be expected. Having formerly had unfavorable results in many cases of abdominal hysterectomy, he had again returned to this method in nine cases with nine recoveries. From this experience Jacob concludes that neither by the abdominal nor vaginal route are cures obtained by operation in cases of advanced malignancy of the uterus. Observations during operations regarding the implication of the glands, a condition which the most careful examination may fail to reveal previously, sufficiently explain the poor results following vaginal hysterectomy. In this procedure the field of operation upon the uterus, the adnexa and the cellular tissues of the ligamenta lata is restricted; the difficulty in clearing out the pelvis from this direction being well known. For this reason he is satisfied that vaginal hysterectomy for uterine carcinoma cannot cure, and that this operation, as well as curettage, cauterization of the cancerous portion, and amputation of the neck, are to be regarded as only palliative measures. Of the non-radical operations, curettage is to be preferred, since

this enables the physician to make other attempts at treatment when necessary, and does not rob the patient of the illusion of approaching recovery.

By laparotomy we can determine the mobility of the uterus, the integrity of the vagina and broad ligaments, and, while glandular implication may rarely be demonstrated, we are not forced to continue operative measures in cases which promise bad results from the outset. In such instances it is better to treat the malignancy palliatively by minor operations.

If the unfortunate patient is seen at the beginning of the affection, before the glands have become involved, the complete removal of all of the peri-uterine glands, even if radical cure does not follow, gives the best results of all methods. Regarding the relative dangers of the two operations (laparotomy and vaginal hysterectomy) Jacob finds from his statistics of eighty cases, with one death, that the former is no more serious than the latter, and regards the first as much easier and simpler, while it protects the operator from the unexpected during operation, and from subsequent accidents. Laparotomy presents another advantage over the vaginal operation in the facility with which more or less of the vaginal walls may be resected — a matter attended with the greatest difficulties in the latter procedure.

Tamponment in Post-partum Hemorrhage.

Dr. Marx (*New York Medical Journal*, Jan. 28), in an article entitled "Practical Measures in Obstetrical Management," has this to say in regard to post-partum hemorrhage: Quick, precise action is required. No time is to be lost recalling theoretical measures. Means that have stood the test of time must be used, and used at once, to bring on firm and good uterine contractions. I have thrown aside, he says, everything but one or two measures. I employ but one *hot intra-uterine douche*, and if this procedure does not bring about the desired result I do not resort to irrelevant and dangerous measures, such as direct compression, ice, persulphate of iron, lemon, vinegar, etc., *ad infinitum*, but proceed to pack the uterus with gauze, toweling, or anything I have at hand. I never go to a case without five yards of gauze being on hand. This is a surgical means of controlling hemorrhage.

The technique of gauze tamponment is simple: one hand over the uterus, while with the other the gauze is shoved in, until no more can be introduced. So long as the gauze remains, bleeding cannot occur. The packing can be safely removed at the end of twenty-four hours, and renewed if necessary.

Perforation of the Uterus During Sounding or Curettage.

Jahreiss and Glaeser, in papers on the above subject (*Centralblatt für Gynäkologie*, Feb. 12, 1898), record three interesting cases of this accident. The former, while curetting the uterus in two instances, felt the instrument suddenly disappear upwards, but was unable to satisfy himself that the curette had entered a dilated Fallopian tube. Although in one case there was sharp hemorrhage following the accident, both patients made good recoveries. In another case he was conscious of perforating a senile atrophied organ with the sound, and subsequent symptoms—slight elevation of temperature, localized

peritonitis, and meteorismus — served to confirm his fears. Celiotomy was performed on the fourth day, but no wound of the peritoneum could be discovered, the site of the perforation presenting only an inflammatory redness and thickening.

Glaeser's case was one of metrorrhagia continuing for three months after childbirth. In order to determine the direction of the uterine canal, the cervix was steadied by a tenaculum and a sound introduced. Without the least pressure having been made, the instrument glided upward as far as the handle. Fearing untoward results, total vaginal hysterectomy was at once performed. At the apex of the removed uterus, near the left tubal insertion, four contiguous perforations were to be seen, two of which were united by a laceration. The surrounding tissue was "mushy," and comparable to "goose-fat" in consistency.

[NOTE.—These cases, as also the several similar ones recently reported, teach the exceeding care with which all manipulations with sound or curette should be conducted. In most instances of uterine perforation more force has been exerted in using the instrument than the operator is conscious of. While considered one of the simplest of gynecological operations, uterine curettage should not be lightly undertaken, especially by one unaccustomed to the use of instruments.]

PRECOCIOUS MATURITY.

The *Boston Medical and Surgical Journal* reports the examination of a child one year old. She was fat and healthy; the breasts were enlarged, the nipples not developed; the hair on the pubes was a quarter of an inch long. Townsend observed the process of menstruation; about half a drachm of blood lay on her clothing. The child weighed twenty-eight pounds and was thirty inches in height. At birth she weighed nine pounds; when four months old she cut her first tooth, and when examined had seven incisors. The breasts were seen to enlarge at the age of three months, and at six months blood issued from the vulva. The mother said the child had menstruated every five weeks.

Mores (*loc. cit.*) observed a similar case; the infant menstruated at nine months, and when examined — one year and three months old — was quite regular. Her weight then was thirty-six pounds (at birth it was fourteen pounds); her height was thirty-two and a half inches. The breasts were very well developed, the nipples large with a dark pink areola. The cervix and uterus could be plainly made out on digital examination.

VICARIOUS MENSTRUATION BY THE BLADDER.

In the Section in Gynecology of the Twelfth International Medical Congress (*Therapeutische Wochenschrift*, November 28) Dr. Marsi, of Bologna, mentioned the case of a young woman who, in August, 1896, had undergone the radical vaginal operation for bilateral disease of the uterine adnexa — including hysterectomy, it is to be presumed. For the four months preceding the report there had been a flow of blood from the bladder once a month. At other times the urine contained no blood. She did not complain of any pain.

PEDIATRICS.

UNDER THE DIRECTION OF CHARLES G. JENNINGS, M.D.,
Professor of Practise of Medicine and Clinical Diseases of Children, Detroit College of Medicine

Difficult Defecation in Infants.

Dr. Thomas Charles Martin (*Journal of the American Medical Association*, Feb. 19, 1898), in a paper entitled "Difficult Defecation in Infants," says that it is a generally recognized fact that infants strain at stool, and cites the following reasons as the cause thereof:

1. The infant's gut is muscularly deficient.
2. Its mobility within the abdomen is obstructive to defecation.
3. The rectal valves are obstructive.
4. The infant's anus not being sufficiently expansive is also obstructive.

In the child the mesentery of the sigmoid flexure and rectum is disadvantageously long. In young children the length of the sigmoidal mesentery, from its attachment to the parietes to its invagination of the lower loop of the sigmoid, is often greater than the distance from the promontory of the sacrum to the distal bone of the coccyx.

The author, from his researches, reaches the following conclusions:

1. The muscular development of the adult rectum is plainly apparent, while that of the infant is deficient.

2. The peritoneum of these parts in the adult is observed to be relatively very considerably shorter than in the infant.

3 The rectal valves appear to bear the same proportion to the gut in both adult and infant, but when we remember the difference in muscular development in the two, the disproportionate resistance of the valve in the infant rectum is obvious.

4. The anal expansibility is remembered as adequate in the adult, and is seen to be deficient in the infant.

Straining, ruptures and prolapses, constipation, retention of feces and the multitudinous consequent ills have demanded patient, inquisitive consideration; and this study forces the conclusion, the author believes, that the individual's escape is ultimately assured by a process of development, but that for the naturally formed infant the physician will find the solution of the problem of difficult defecation in the solution of the stool.

The Poultice in Pneumonia.

Dr. A. W. Schin, in *The Lancet*, gives several very strong reasons why the poultice should not be used in bronchopneumonia of children. The weight of the poultice, and the change of temperature between the application and removal, tend to heart failure, and are, like the repeated removal of a patient from a hot to a cold room, unscientific and prejudicial to the welfare of the patient. He obtains better results by applying to the chest a packet, loosely fitting, made of light material, and rubbing it with oil and turpentine, giving at the same time the remedy indicated by the stage of the disease.

Excessive Treatment in the Disorders of Infants.

In an article upon "Excessive Treatment in Disorders of Infants," the specialist in pediatrics, Neumann of Berlin, gives the following warnings:

1. Do not bathe the infant, and thus remove the vernix caseosa, which is itself aseptic. The first bath should be given *after the navel wound has healed.*

2. Avoid too much cleansing of the mouth of the infant by rubbing and scrubbing it out.

3. Refrain from scarifying the gums with the idea that dentition is a pathologic process.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Orthoform.

Investigators have for a long time sought to determine the hypothetical molecule hidden in cocaine or its derivatives which would produce local anesthesia without accompanying toxic effects. A synthetical combination has been produced, mainly as a result of the experiments of Einhorn and Heintz, of Munich, to which product the trade name of "Orthoform" has been given. It is a white crystalline non-hydroscopic powder, without taste or smell, and melts at 120° C. The hydrochloride is the preparation on the market. It has no anesthetic effect on unbroken skin, and only slight effect on unbroken mucous membranes, manifesting its strong anesthetic properties only where nerve endings are exposed. The advantages claimed for it are that it is sparingly soluble, absolutely non-toxic, and decidedly antiseptic. Owing to its slow solubility its anesthetic effect is prolonged, lasting from five hours to six days.

In the last number of the *British Medical Journal*, Dr. E. S. Yonge gives an interesting report of some experience with this preparation in diseases of the upper air-passages. He used the crude powder, alone or mixed with an equal volume of lycopodium, for insufflation on ulcerated surfaces; a spray with this formula: Orthoformi gr. v, sp. vini. rect., aquæ ää ℥j, for nasal and laryngeal ulcerations; a ten per cent. ointment with any good base; and other combinations as experience suggested. He reported its use in eighteen patients and seems to have found it of special value in various forms of tubercular ulceration, broken down epitheliomata with denuded mucous surfaces, and to relieve discomfort and swallowing pains in various acute affections.

Nasal Bacteria in Health.

At the last annual meeting of the American Laryngological Association, Drs. Park and Wright (*New York Medical Journal*, vol. 67, No. 6) reported the literature of this subject thoroughly and gave the results of several series of experiments

made to determine the character and frequency of bacterial colonies on healthy nasal mucous membrane. As a result of their researches, they arrived at conclusions somewhat at variance with those of earlier investigators. They found that the healthy nose is not so full of germs as might be supposed. This comparative scantiness is probably due to:

1. The action of gravity. Clear serum draining down from regions in the nose to which the inspired air does not have free access washes away the bacteria deposited by the tidal air.

2. The action of the cilia supplementing that of gravity.

3. The fact that the nasal mucus, while possessing little or no bactericidal power for most bacteria, is not a good medium for most bacteria to grow in.

4. The filtering action of the vibrissæ when they exist. (It will be remembered that children have none and women very few.)

5. The fact that ordinarily the inspired air contains very few pathogenic germs, or, in other words, those germs accustomed to grow in body fluids.

We may conclude, therefore, that for bacteria which have developed in the blood or secretions of other individuals the bactericidal power of the nasal mucus is little or nothing, and cannot be depended upon to prevent infection from virulent bacteria if they are carried into the nose by other instruments.

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
Lecturer on Dermatology, Detroit College of Medicine.

The Permeability of the Epidermis to Medication.

W. Filehne in the *Berliner Klinische Wochenschrift* of January 17, 1898, has a very able paper entitled "The Permeability of the Human Epidermis to Solid and Liquid Substances."

The author has experimented with various substances with a view to ascertaining their power of penetrating the epidermis; the glands, or that part they have to do in absorbing fluids or solids, being excluded. As watery solutions do not pass through, the epidermis must be looked upon as a membrane saturated with fat, and, therefore, capable of absorbing only such substances as can be dissolved in this medium. Filehne has given special attention to those substances where lanolin has been used as a vehicle. He has found that sodium chloride, potassium iodide, and arsenic are not soluble, nor is blue ointment. Corrosive sublimate, sulphur, lead oxide and lead acetate are soluble in lanolin. Mercurial ointment, according to a microscopic examination of the skin after inunction, was found not to have been driven mechanically through the skin, the cells of the epidermis failing to show any mercury. Carbolic acid, chrysarobin, oils and various organic substances were found soluble. It is only after the passage of these substances through the various layers of the epidermis that absorption takes place. The author states that the subject of absorption by the glands leaves a large field for investigation.

OPHTHALMOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

Holocaine.

The new local anesthetic, holocaine, a synthetic alkaloid introduced by Tauber, has been much lauded during the past year by writers in the European medical press.

In a paper read recently before the Chicago Ophthalmological and Otological Society, by Würdemann and Black, of Milwaukee, they reported their very thorough clinical experience with holocaine, they having made a very careful study of its action in comparison with that of cocaine and eucaine. On account of the severe irritation produced by eucaine, its use has been given up.

Anesthesia of the cornea is produced by holocaine in fifteen seconds after the instillation of one drop of a one-per-cent. solution, and lasts for ten minutes. Cocaine requires a wait of ten or twelve minutes for the beginning of full anesthesia of the cornea. Also anesthesia of the iris is produced by the use of holocaine, a result which is not obtained in cocaine anesthesia in cases where the tension of the eye is increased, as in glaucoma. Holocaine anesthesia seems to be indefinitely prolonged by repetition of the solution, which is not the case with cocaine. Neither the pupil nor the accommodation is affected by holocaine, which renders it especially useful before removal of intrusive foreign bodies, irritating medicines, etc., from the eye.

Holocaine costs $12.80 per ounce, while cocaine is had for $4.80 per ounce; yet when one considers that holocaine goes four or five times farther than cocaine, it is comparatively cheaper. The only disadvantage in the substitution of holocaine for cocaine for anesthetic purposes is that bleeding is more copious under holocaine. It is admitted that although holocaine has been found to possess these distinct advantages over cocaine when applied as a pure anesthetic, it has not displaced and probably will not entirely displace the older medicament.

Blepharitis.

The good effects of picric acid in eczema suggested to Professor Page, of Amiens, the idea of employing it in blepharitis, an affection which might be regarded as eczematous, and for the last three months the learned Professor has applied this treatment in the cases above mentioned with constant success. After removing the dried secretions with a solution of boric acid, he paints, every two days, the edges of the lids with a five-, eight- or ten-per-cent. solution of picric acid. This little operation, which the patient can easily do for himself, attenuates considerably the itching and burning sensations, and effects a rapid healing of the ulcerations. The solution leaves a yellow stain on the lids, but it does not last long, and in any case it is not so apparent as that caused by nitrate of silver, tincture of iodine, or the violet of methyl. The solution of picric acid is in no way dangerous to the conjunctiva.—*Medical Press and Circular.*

THE MEDICAL AGE

VOL. XVI. DETROIT, MARCH 25, 1898. No. 6.

ORIGINAL CONTRIBUTIONS.

SOME CASES OF BRAIN SURGERY.*

BY HAL C. WYMAN, M.S., M.D.,

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Because the functions of the brain are involved in so much obscurity, and have been the fruitful theme of research for physiologists, is my reason for submitting these cases, which afforded me much surgical interest. I will recite them with as little circumlocution as possible.

Case 1.—A man about 40 years of age was brought to the Emergency Hospital in an unconscious state. The house staff learned that the man had been in a fight some days before. After the fight he went to his room, which was in a disorderly place; there he lay from Thursday until Sunday evening, when the women about the place became alarmed at his helplessness and unconsciousness and called the ambulance. They could not tell the ambulance surgeon what injuries he had received in the fight. The man's head rolled about on his neck in a peculiar, wabbly sort of way, and when quiet his jaws protruded in a very striking manner, suggesting a fracture or dislocation of the cervical vertebra; and a half-hearted diagnosis to that effect was made on his arrival at the hospital. I saw him the next morning with Dr. Hackett, and together we examined him for fracture and dislocation of the neck, but we could not find such an injury. The man was profoundly unconscious, was puffing his cheeks and tugging at his larynx. There was a little spasticity of the right side of his body, but apparently absolute paralysis of the left side. The pupils were alike and inactive. His bladder had been dribbling urine when he came in, but enough for examination was obtained with a catheter and no albumen was found in it.

No more history than has been recited could be found, except from the police we learned that the man had really been in a fight, that he had a very bad character, and had been several times in prison. It was apparent that there was some intracranial lesion. I concluded that it was most likely hemorrhage and a clot, because I thought the symptoms would have developed immediately after the fight if they had occurred from any other cause. The

*Read before the Michigan Surgical and Pathological Society, Detroit, March 9, 1898.

women who knew of the fight would have been alarmed and called the ambulance directly if the symptoms of cerebral compression had occurred at that time. That vehicle was called only when they became alarmed, which was some seventy-two hours after the injuries were inflicted. For these reasons I felt quite sure the compression was due to intracranial hemorrhage. What part of the brain was compressed was not easy to answer; spasticity on the right side, paralysis on the left, might mean simply that something was disturbing cerebration but would have no special localizing function. There was no mark to be found anywhere on the man's head to indicate the point where the blow fell, if blow there had been.

However, in view of the fact that nearly all cases of cerebral compression developing slowly after injury are due to laceration of some part of the middle meningeal artery, I decided to trephine over this vessel and search for the source of the hemorrhage. A flap of scalp and right temporal muscle was turned back, and the trephine was applied and a button of bone removed from a place about an inch anterior to the external auditory meatus and just above the zygomatic arch. A large clot was found. It spread forward and backward, and before I could get it all out I had to remove a great deal of skull bone. A piece three inches long and one and one-half inches wide was removed from the right side of the head, parallel with and including the temporal ridge. When the clot was all out, artificial respiration was practised vigorously for a time, and under its influence the compressed brain began to expand. The bleeding trunk of the middle meningeal was found and ligated with silk. This was accomplished with some difficulty as the dura was pressed back fully an inch from the bone.

There was no attempt to replace any of the bone removed. Consciousness returned gradually during the twelve hours succeeding the operation. No anesthetic was used, as the man was so profoundly insensible in consequence of the cerebral compression that drugs were unnecessary. The wound healed sound and all mental functions were perfectly restored.

The subsequent history of this case was uneventful, excepting in this respect, that he made a splendid recovery.

Case 2.—John C——, aged 44 years; American; stationary engineer; family history good; never had any severe, acute or chronic disease until the present illness.

The narrative of this case embraces some facts quite out of the ordinary in medical case-writing. That is my reason for speaking about them. One blustering, sleety evening I was about to leave my office, at the conclusion of the usual office hour, when a gentleman called and asked for a few moments' conversation. He said his friend was hopelessly ill; that he had been attended during the past week by two very distinguished physicians (mentioning their names), who now gave up all hope of restoring the patient to health or consciousness. He said he had heard of surgical operations upon the head which restored people to consciousness and health, and thought that I being a surgeon would make such an operation and perhaps save his friend's life. "Have you spoken to the man's family about an operation?" I asked. "Yes," said he, "and I also suggested it to the physicians when they made their last visit

to-day, but they told me it was of no use, the man had apoplexy and would die—in fact was dying as fast as he could; but the wife and children were anxious for operation." "Why are you so certain that an operation will do your friend good?" I wanted to know. "Because we have heard, in a general way, that you have performed such operations successfully," was his reply.

I was pressed to visit the patient, whom I was assured was abandoned by his regular attendants. This, however, I was not willing to do until my visitor had telephoned one of the attending physicians and received from him permission to see the case. The answer came, "Tell Dr. Wyman that no operation will do any good, but to see the patient if he wants to." After that I went to the residence of the sick man, and this is what I saw: A comfortably furnished house, a family of father, mother, and four well grown children. The father, whose name and case history in part stands at the head of this narrative, was lying in bed. He was an unusually large man and weighed, I think, about 240 pounds. He was unconscious. His left side was paralyzed and his left leg was badly burned and blistered by the hot bottles and bags which had been kept upon it. His right side was more or less constantly in motion. The jaws were protruded and head thrown back. Pulse was slow, feeble, and irregular; temperature was 103° F. Bowels had moved incontinently. Urine had been drawn with catheter for several days. Pupils were irregular; the right one was larger than the left, and both were immobile. Reflexes were generally abolished. From his wife I learned that he had been sick about three weeks and had never been sick before; that he first consulted a physician because of earache, but thought the doctor's medicine was too strong for him, and feeling much better, quite free from pain, called another doctor, who told him that he was threatened with apoplexy, gave him some medicine which acted strongly on his bowels, and went away telling his wife to call him if he did not get on all right. She called the doctor again the next day, because her husband had headache in every part of his head, apparently not more on one side than the other, she said, and not sharp and cutting like the earache the former physician had prescribed for. More medicine was ordered and taken, but there was no subsequent improvement. He was in more pain, more restless and indisposed every hour. Then all at once his left side became useless, and he became delirious and wandered in his mind and speech. He was constantly trying to get up. The medicine did not quiet him. The next day he passed into a sleep, and nothing they had done had wakened him. At first by shaking and talking loud they could get him to swallow and say a word now and then, but now they could get no response whatever. "Do you think your husband ever had any head trouble before this?" I asked. "No, I am sure not. We have been married twenty-three years and he has never had a sick day nor lost an hour from work during all that time." "Has he ever had any breaking out on his skin, any eruption, any falling out of hair?" I asked. "No, Doctor," was the reply, "he simply caught cold, had the earache, and then this headache came on." No other significant history was learned.

I diagnosed suppurating meningitis, perhaps thrombus of the right lateral sinus, and decided to trephine over the region of the sinus. I had Dr. Robert

S. Linn assist me. No anesthetic was needed as the patient was profoundly insensible. A flap was turned back from the scalp behind the right ear and above the mastoid process. Then the trephine was applied about an inch behind and an inch above the external auditory meatus. The skull wall was removed, and some bloody pus discharged from between the dura and the bone; the dura was loosened from the bone and the sinus was compressed by inflammatory products, which were quite dense in the direction of the sigmoid sinus. With rongeur the skull was cut away about an inch and a half in the direction of the lateral sinus. A short drainage tube was inserted between the dura and the bone over the sigmoid sinus; some inflammatory products oozed through it. The scalp was replaced and closed with sutures and an antiseptic dressing applied. Improvement in pulse and respiration followed immediately after the operation. From day to day he gained. Daily the gauze was saturated with inflammatory products for two weeks, then all discharge ceased. The sinus closed after the drainage tube was withdrawn. The complete recovery of this patient was established in about five weeks after the operation, although full strength of left hand and left limb has never been restored.

The value of history in pointing the way to a true solution of the perplexing features of a case is nicely illustrated by a case operated upon and cured a few months ago:

Case 3.—I was called one evening last November to visit a patient residing on Waterloo Street in this city. The hour was somewhat late in the evening, and the messenger appeared greatly agitated and could give no satisfactory account of the nature of the case I was called to see. However, I went to the patient's bedside as solicited. There I found a man 68 years old, born in Germany, by occupation a teamster for a large wholesale drug house; he was profoundly unconscious. I was told that he had been abandoned by his medical attendants some hours before I was called, they having given up the hope of restoring him to life or consciousness and looking upon him as one about to die. The situation was anything but agreeable for me. I wanted the family to call the physician who had been regularly in attendance, that I might get from his lips the story of the case. One of the sick man's sons, at my request, visited the family physician and urged him to see his father and again look him over, but he was so busy that he could not go until very late, and I thought it best to proceed with my examination of the case.

The family consisted of five persons besides the sick man. They were a wife and four children. The latter were all grown. Each tried to tell me all about the patient, as he was so completely comatose that no word could be had from him. It was quite difficult to get a good, plain narrative of the case, but constant effort finally succeeded, and I learned that the sick man fell from a truck on July 7, and that he was badly stunned by the fall. Some of the family said his left wrist was broken, while others claimed that it was only sprained. They also said that the family physician was in doubt on this point, notwithstanding he had treated the injury several months and until other and more painful symptoms appeared. At the time of the fall which was alleged to have injured the left wrist, there was received a severe bruise and swelling

on the right side of the head, but while the patient was dazed and shocked by the fall, he insisted on going to his home unaided by his friends. He refused the services of an ambulance or carriage and went home on a street car, when the family physician saw him. Subsequently other physicians at various times treated the patient three months for the injury to the wrist before mentioned. At the end of that time the patient began to have severe headaches, located in the back of the head, and another physician was called in. Then followed about four weeks of unremitting pain, during which much medicine was taken, but the symptoms grew steadily worse as a left hemiplegia appeared. Then in a few days, just how many I could not learn, coma appeared, and it continued in full force up to the time of my visit.

I made a thorough physical examination and found no evidence of disease in any of the organs outside of the cranial cavity. There was left hemiplegia; right side was in more or less spastic state; right pupil immobile and somewhat enlarged, left responded slightly to light; deep coma; puffing of cheeks in respiration, which was alternately moderately fast and slow. Shaking and loud talking elicited no response. There was no mark upon the head to indicate the point where the blow was received. The left arm and hand, the wrist of which had been treated for three months, because of sprain or fracture (alleged), was normal in all passive movements, but the forearm was slightly shrunken and atrophied. I thought the muscles used in the approximation of the left thumb and forefinger were smaller than normal. A son said his father had not used thumb and finger correctly since the fall, and he thought there was "something wrong in his father's brain."

I proposed an operation, thinking an injury to the brain existed and that it was located near the thumb center of the right fissure of Rolando. The family consulted on my advice and consented to have an exploratory operation performed on the patient's brain. I asked Dr. Weitz, a well known professor of diseases of the nervous system, to see the case with me and assist in case we decided that an operation should be performed. It was quite clear that the centers for the control of approximation of the thumb and fingers of the left hand were in some way affected before the hemiplegia and coma appeared. From the family we received reliable information as to the point on the head that was bruised by the fall the patient received last July. There we decided to open the skull, thinking a fragment of the inner table might have damaged the cerebral cortex on the right side and have caused an abscess or cyst. It was also surmised that pus or cyst might have followed laceration of the pia mater and brain substance. We turned back a flap from the scalp and removed a button of bone from the right parietal bone, near its junction with the coronary and squamous sutures. The dura mater bulged slightly into the opening; no pulsation could be felt. A tenotome was thrust gently through the membranes and a quantity of thin sanious fluid at once discharged. The cavity from which the fluid discharged was explored with a probe. It was found to be about the size of a hen's egg and its walls firmly adherent to and blended with adjacent brain tissue. Its removal was considered impracticable. A drainage tube was introduced, the flap replaced and fastened with silk sutures. Sterilized gauze and cotton, held in place by a

bandage, completed the dressing. No anesthetic was used. The after-treatment consisted of doses of calomel, followed by saturated solution of sulphate of magnesia until the bowels were freely evacuated.

Almost directly the contents of the cyst escaped there were signs of improvement. Consciousness returned after about twelve hours. Purulent fluid discharged freely and was encouraged to come away by injecting the sac twice a day with hydrogen peroxide solution. Recovery was slow, but from day to day there was marked improvement. About eight weeks after the operation the cyst was obliterated and all evidence of intracranial derangement gone, and the patient well and sound.

THE CURE OF STRICTURE OF THE CERVICAL PORTION OF THE ESOPHAGUS BY ESOPHAGOTOMY; REPORT OF A CASE.

BY CHRISTIAN FENGER, M D., CHICAGO.

Mrs. X——, about 40 years of age, consulted Dr. Frank Billings in November, 1894, on account of inability to swallow. As Dr. Billings found a stricture in the esophagus, he referred her to me for operation, and she entered Mercy Hospital.

The patient gave the following history: About five years previously she suddenly experienced difficulty in swallowing, accompanied by a "queer feeling at the back of the tongue." She looked in a mirror and saw a tumor the size of a marble, back on the dorsum of the tongue. She believed that the tumor originated from the tongue and not from behind the tongue. She did not think that the tumor had anything to do with the present disease. The tumor was of the same color as the tongue; it remained for a few days, when the difficulty in swallowing disappeared, and she felt perfectly well.

A month later she experienced choking and soreness lower down when she was eating, but had no trouble at any other time. When she swallowed solid food she felt as if she would choke to death, particularly when she would attempt to swallow meat of any kind. The bolus of meat would usually pass down, but would sometimes come up again. In either case the choking sensation ceased immediately. At this time she had a severe cough. This condition persisted for a week or two, when all symptoms ceased.

She was perfectly well for a month or two when, as she thinks, after taking cold (but there was never cough or fever), without warning, she would choke when a solid bolus was swallowed. Sometimes swallowing ice-water would produce the same result, and the water would be gulped up, but sometimes she would be able to keep it down. This condition persisted for three or four days at a time and then would cease, and she would be well for one or two months. In the interval she had no difficulty in swallowing liquids or solids.

In 1891, when she was under treatment for uterine disease, the throat became worse; that is, the free interval between attacks became shorter, and she felt as if there was something in the throat all the time. She located this obstruction below and a little to the left of the cricoid cartilage. The attacks of choking were brought on only by swallowing, but now came on more fre-

quently. She had to be especially careful about swallowing meat, so that later on she was obliged to boil it until it was very tender, and then to mince it fine. When she vomited she would feel pain across the trachea below the cricoid cartilage.

Three weeks before she consulted me, she felt sick at the stomach about two hours after dinner, and began to vomit. She vomited the tea which she had taken at dinner, and immediately felt as if "something tore loose" in the same location. She felt a sudden pain, a strangling sensation, could not get her breath, and took hold of the table to keep from falling. This attack of suffocation lasted for about a minute. After this she felt that the lump which she always felt inside had suddenly become larger. She did not notice any enlargement on the outside of the neck. The pain remained all the afternoon, and she could not swallow solids for three days. She was able to swallow liquids the same evening, but with more difficulty than usual. She consulted a physician, who told her there was something in the throat, and referred her to Dr. Billings.

At the time of examination the patient presented the following condition: She could swallow bread if it was exactly right—namely, not too fresh and not too stale—and finely mashed vegetables. She had eaten no meat for three weeks until the day I saw her, when she had a little chicken minced fine with gravy. She was not emaciated, and showed no cachexia. Palpation on the outer side of the neck was negative. Inspection of the mouth and palpation with the finger down over the epiglottis were negative. A large elastic bougie with blunt end was inserted fourteen cubic centimeters below the upper incisors; a fine elastic bougie could be passed three and a half cubic centimeters lower.

Diagnosis.—The history would naturally lead us to think first of a polypus of the esophagus, located in the neighborhood of the cricoid cartilage, pedunculated, and causing the difficulty in swallowing and the attacks of suffocation by displacement. These attacks would disappear when the polypus resumed its ordinary position. Although such cases are rare, esophageal polypi have been operated upon from the mouth, when brought up behind the root of the tongue by an attack of coughing or vomiting, so that they could be seen and caught by a forceps, and the pedicle divided by an écraseur or the galvanocautery, or by scissors below or above a ligature. When the pedicle was so short that dissection became necessary, preliminary tracheotomy has been resorted to. When the polypus can neither be felt nor seen, an exact diagnosis is impossible, and exploratory esophagotomy must be resorted to.

In this case the impossibility of passing a sound would speak against the presence of a polypus, but still a sound might be arrested in a pocket of the esophagus, caused by a polypus.

In addition to a polypus we might have to deal with a stricture, but as almost all benignant strictures are caused by swallowing caustic fluid, and the malignant strictures by cancer, and as both of these etiological factors were absent, I did not think it likely that a stricture existed.

Plan of Operation.—(1) Prepare for tracheotomy with tampon-cannula, by making an incision down to the trachea, so as to be able to open the trachea and insert a cannula at a moment's notice should a movable polypus suddenly

come up, and close the entrance to the larynx. (2) Make esophagotomy for removal of tumor or overcoming of stenosis. If the stenosis is found to be irreparable, insert an esophageal sound below the stricture down into the stomach, or possibly unite the lower, free end of the esophagus with the skin of the neck.

Operation November 22, 1894. Chloroform was administered by Dr. Stanton. Excellent narcosis for four hours. Incision for preliminary tracheotomy in the median line. Isthmus of thyroid gland small; it was divided by the Paquelin cautery between ligatures and the trachea laid bare for an inch and a half. The wound was packed with iodoform gauze and temporarily united with sutures.

Esophagotomy.—Incision along anterior border of left sterno-cleido-mastoid from the angle of the inferior maxilla to the sternum. Division of the omohyoid muscle and separation by blunt dissection down to the pre-vertebral space. Internal jugular vein, pneumogastric nerve and common carotid artery drawn aside with blunt retractors. The sternal portion of the sterno cleidomastoid was then divided to obtain more operating space. The left lobe of the thyroid gland covered the esophagus for two inches and was so much enlarged that it pressed upon the esophagus and might, I thought, be the cause of the stenosis. Thus, after vainly trying to pass an esophageal sound, I proceeded to extirpate the left half of the thyroid gland. The superior, medial and inferior thyroid arteries were ligated, the latter between the recurrent laryngeal nerve and the gland, care being taken not to include the nerve in the ligature.

After the removal of the gland the esophagus was visible for two inches below the cricoid cartilage. Upon examination with the fingers, I could find no signs of a polypus, no swelling or movable body, no hardness or externally visible stricture anywhere. The esophagus appeared perfectly normal.

Exploration by instruments from the mouth revealed a point in the esophagus, half an inch below the cricoid cartilage, beyond which instruments could not pass. At this point the esophagus was held out by two loops of silk passed through its wall, and a longitudinal incision made between the loops. When the white mucosa had been divided, the esophagus was found open below the stricture, and a sound passed easily down into the stomach. The stricture, which was in the shape of a membranous diaphragm, had a small opening passing obliquely through it, from left to right, but the canal was so tortuous that a probe could not be passed through it up into the mouth.

The esophagus was incised above the stricture against the end of a forceps passed down from the mouth, and through this opening the finger could readily be passed up into the mouth. Between the two incision openings was situated the diaphragm, which was half a centimeter in thickness. This diaphragm was divided by a crucial incision, which left the upper and lower borders of the mucosa half an inch from each other. No hard tissue, ulcers or cicatrices were seen; the tissue of the diaphragm was soft.

The mucosa of the upper end was united with that of the lower end with eight sutures. A flexible esophageal tube was passed through the right nostril down into the esophagus for six inches or more below the stricture, and the

wall of the esophagus united over the tube by a double row of sutures, eight or ten mucosa sutures and as many muscularis sutures. There was no tension in the esophageal wound over the tube.

The divided sternal portion of the sterno-cleido-mastoid was united, and the wound in the neck united in its upper and lower portions, but left open over the wound in the esophagus for packing. The wound over the trachea was left open with a separate packing to make tracheotomy possible, if edema of the glottis should occur later on.

There was no loss of blood and no collapse, in spite of the length of the operation, but when the patient awoke she was hoarse from left posticus paralysis.

The patient received nourishment through the esophageal tube without any difficulty, but the wound in the esophagus did not heal by first intention, and for the first three or four weeks cough would force out mucus through the wound. There was no infection, no fever, and the patient's general condition was good throughout.

January 5, 1895. The hoarseness is much less; the wound has contracted to a fistulous opening, through which the sutures of the sterno-cleido-mastoid protrude. No mucus is forced out by coughing. The esophageal tube was removed.

January 8. The patient swallows liquids and gruel and nothing passes out through the granulating tract. An elastic bougie ten millimeters in diameter passes down easily without pain. A bougie thirteen millimeters in diameter is caught at the place of stricture and causes slight pain. She is allowed to swallow solid food.

March 3. The paralysis has disappeared, as laryngoscopic examination shows the glottis to be equally movable on both sides. She swallows solids and liquids without difficulty, and can pass the esophageal bougie herself. The patient left the hospital.

Two years after the operation she was well.

MULTIPLE PAPILLOMA OF THE LARYNX.*

BY PRESTON M. HICKEY, M.D., DETROIT, MICH.

Some time ago Dr. Sanderson invited me to examine a youth evidently suffering from laryngeal stenosis. The patient, John B——, aged 12 years, had been hoarse about one year; attendant symptoms were cough, marked attacks of dyspnea, with progressive emaciation probably due to deficient oxygenation of the blood. Inspection of the pharynx revealed a considerable enlargement of the tonsils. Laryngoscopic examination showed that the larynx was almost completely filled with a cauliflower-like mass, the points of attachment of which could not be accurately determined. While the mirror was in postion, no opening of the glottis could be seen upon vocalization, the air evidently passing around and between the overlapping vegetations. After cocainization a small mass was removed with the tube forceps of

*Read before the Wayne County Medical Society.

Mackenzie. Sections made with the freezing microtome proved the neoplasm to be a papilloma.

On account of the frequent attacks of dyspnea which at times were so violent as to seem to endanger life, the patient was sent to Harper Hospital, where if necessary a tracheotomy could be done in an emergency. The question of an endo- or extra-laryngeal operation was considered by Dr. E. L. Shurly and myself, but on account of the comparative ease of laryngeal manipulation in this case, it was decided to remove the growth piecemeal *per vias naturales*. The patient's larynx had been educated to a considerable degree of tolerance by the previous medication under the direction of Dr. Sanderson. After the removal of several small pieces with the tube forceps the patient was relieved to some extent, as the cough became less violent and the dyspnea less marked. After a week's stay at the hospital the lad returned home, presenting himself at the office every day for treatment.

When several more fragments had been removed I discovered that the main obstruction was due to a large mass attached to the edge of the left vocal cord. During quiet respiration this mass would fall between the cords, while upon the tension of the cord during vocalization it would lie supported upon the right and left vocal bands. After one or two unsuccessful attempts with the forceps to remove this mass, I decided to try the laryngeal snare. This was threaded with a tolerably stiff steel wire, the loop adjusted to about the size of the long diameter of the glottis, and the snare introduced into the larynx so that the distal end of the curved cannula was just above the vocal cords. The loop was next pressed firmly against the left cord and quickly tightened. Luckily it encircled the mass upon the first insertion, and removal was at once effected. No hemorrhage ensued. The voice returned spasmodically, while the dyspnea disappeared. The upper and hence more easily grasped pieces having been removed, the task of clearing the larynx of the remaining fragments was more difficult. On account of the enlargement of the tonsils and their interference with the use of the larger sizes of the laryngeal mirrors, a double tonsillotomy was performed, after which the work with the forceps was much easier. A number of fragments about the size of a pin-head were coughed up by the patient at varying intervals.

The larynx was now tolerably clear, with the exception of a number of minute excrescences situated principally upon the cords. The idea of intubation in the hope that pressure by the head of the tube upon the glottis would cause atrophy of the remaining pieces suggested itself and was carried out. I intubated the patient every day with the short tube known as the foreign-body tube. The longer and regulation tube was tried, but seemed to produce tracheal irritation. Introduction was accomplished by the aid of the mirror and not with the guidance of the index-finger. The head of the tube evidently caused considerable pressure, as shown by the fact that the discomfort subsequent upon its introduction was so great that it could only be worn for one or two hours. The daily intubation was continued for about one month, at the end of which time the larynx was quite free of all obstruction. The voice had returned, although there was a tendency to relapse into a whisper if the attention was not concentrated upon the vocalization. This tendency with a

slight shrillness disappeared gradually. The larynx was sprayed with an astringent solution twice a week for some time. At the present time laryngoscopic examination shows the parts to be in a healthy condition, with the exception of a slight thickening at the anterior commissure and the existence of two traces of scar tissue. After relief was obtained from the attacks of dyspnea, the patient gained rapidly in weight and has been in good health ever since.

In the case just reported no etiological factor could be discovered. None of the patient's antecedents suffered from any constitutional taint as far as could be ascertained. At the age of four he had an attack of diphtheria, and a year or so later scarlet fever, which left a deafness for some months. However, for a period of five or six years he was in good health, with no symptoms of pharyngeal or laryngeal irritation.

Of all the tumors having their origin in the larynx, papilloma is the most common. Of 1100 cases of laryngeal neoplasms collated by Bruns, 54 per cent. were papillomata. Of 310 cases collated by Elsberg, 163 were of this type.

In regard to the etiology different writers have from time to time advanced various theories. Exposure to irritating dust and gases, hereditary taints, catarrhal conditions of the upper air-passages and excessive use of the voice have all been considered as predisposing causes. The researches of Coyne upon the nature of laryngeal mucous membrane showed that upon the free surface of the vocal cords was a distinct layer of vascular papillæ; this may account for the fact that the edge of the cords is the most frequent place of attachment or origin.

Pathologically the papillomata are to be classed as one of the varieties of the fibromata. The structure consists of a protrusion of the connective tissue of the mucosa containing a capillary loop with nerves; this connective tissue is covered with fifteen to twenty layers of tessellated epithelium. On account of the preponderance of epithelium, some writers, more particularly those considering the subject more from a clinical than a pathological standpoint, are disposed to class these neoplasms with the epitheliomata. These papillæ may divide and subdivide, giving rise to the villous or velvety appearance which is so characteristic.

The symptoms which appear in consequence of these growths will vary in severity, according as the glottic space is more or less obstructed. The most prominent are alteration of the voice, cough, dyspnea, and glottic spasm. In children, in whom the multiple form is more common than in the adult, laryngeal stenosis may result in fatal termination. It is probable that some of the cases of sudden death in very young children may be due to the glottic spasm resulting from the displacement of an unrecognized papilloma. The laryngoscope will of course settle any doubt as to the diagnosis in those cases where the patient is of sufficient age to permit of the examination. The advocates of the autoscope claim that even in very young children the larynx can be easily examined with the aid of a general anesthetic.

The treatment of papillomata is removal either by chemical escharotics, endo-larygeal operation, or thyrotomy with curettement. Owing to the fact

that many cases tend to a spontaneous disappearance, the wearing of an intubation tube or tracheotomy tube for a longer or shorter period is sometimes followed by a cure, the tube relieving the urgent symptoms until absorption of the growth. Nitrate of silver, either in solution or fused upon a probe, chromic acid, astringent sprays of the salts of copper or zinc, the insufflation of salicylic acid, have in a limited number of cases been followed by disappearance of the tumor. The introduction of a piece of sponge upon the end of a probang and the wiping away as it were of the warty excrescences have been successfully employed. Different forms of forceps of varying sizes and mechanism have been used in the majority of cases where laryngoscopic examination was possible. In such cases the education of the larynx to be tolerant of the introduction of instruments is most valuable as a preliminary procedure. The after cauterization of the base of the growth with chemicals or the galvanocautery is a valuable precaution against recurrence. Unfortunately, in some cases the irritation thus produced seems to stimulate to a return of the tumor.

In reviewing the literature upon this subject it seems to be the consensus of opinion among those observers who have had extensive experience with laryngeal neoplasms that after the diagnosis has once been positively made, active remedial agents should be at once adopted, and if the case shows urgent symptoms no hesitation should occur about opening the larynx if endolaryngeal methods of operation seem inadequate. The peculiarities of each case will of course influence the selection of the remedial agents to be employed.

OTHER OCCUPATIONS.

A young man after graduating in medicine, fresh from college, hospital, and books, has had little time to give to other themes of thought aside from the one study which is to be his lifework, and very naturally the momentum of gathered forces keeps him right along in this channel. Medical studies and interest in them should be kept up, but not to the neglect of all else.

A favorite side-study of physicians has been, and must continue to be, in natural science. This is so nearly related to medicine that the educated physician is soon quite at home in its realms. Such studies are to be commended and never deprecated. They have a natural tendency to broaden the intellect, and broad-mindedness, coupled with a culture that belongs to mentally well equipped men, gives to the country its most useful citizens.

There is such a thing as narrowing the mind of any man by a continuous line of thought carried on in one direction. A physician should know something besides medicine, and know it well. The list of collateral sciences is not a limited one, and the doors of entrance are always invitingly open.

There are other occupations, such as belong to the commercial world and are purely money-making in character; these detract from the professional character of a physician, because of the tendency which will crop up and make a man think of his profession as a money-making trade. Such occupations, when entered upon by a physician, drag him down, and seldom or never build him up in a professional career. For this reason they should be avoided unless medicine is to be abandoned.—*Cincinnati Lancet-Clinic.*

IN MEDICAL CONCLAVE.

DETROIT ACADEMY OF MEDICINE.

At the meeting held on March 8 the Academy listened to a paper read by Dr. Leartus Connor, entitled "Need for and Value of Public Health Work." While the paper was not a technical one, and could have been easily understood by laymen, there was brought up a startling array of facts and statistics to show the urgent need of public health work not only in the interests of the people now living, but for a strong and hardy people in the generations to come. The great diminution in the death-rate, especially in the zymotic and filth diseases, since health boards have compelled observance of rules of cleanliness is almost incredible, and yet men who are level-headed in other things are opposed to reasonable expenditures in health matters, because the value of a human life saved cannot by them be computed as a saving to the community of dollars and cents. Throughout the whole paper there was a plea for a more honorable recognition of the unselfish efforts of the medical profession, the local health boards, and the national health board, by the people for efforts made in their behalf to lessen the mortality of communities, and to educate the ignorant in health matters.

The discussion brought out the entire inadequacy of the present methods of controlling epidemics involving more than one State because of lack of a central authority with sufficient power to establish a national quarantine.

WAYNE COUNTY MEDICAL SOCIETY.

At the meeting held March 3, the subject of discussion was "Surgical Tuberculosis." Dr. E. L. Shurly spoke of the most recent methods of treating abscess of the lung and empyema, pointing out the specific dangers and the precautions necessary in doing a pneumonotomy or a thoracotomy. Dr. J. H. Carstens followed with a paper on tuberculosis of the abdominal organs, giving some good practical suggestions to guide the operator in tubercular peritonitis and appendicitis. Dr. F. B. Tibbals treated the subject of the glandular system, and recommended early excision of the infected lymphatics. The lesions in the brain were discussed by Dr. David Inglis, who admitted that the field for cerebral surgery was limited, it being only on rare occasions that success attends surgical methods.

At the regular meeting held on Thursday evening, March 10, Dr. W. C. Stevens read a paper on the subject of "Habitual Abortion." He reported the very interesting case of a woman who, out of thirteen pregnancies, had aborted nine times. Her family history was good, there being no evidence of syphilis or any hereditary taint. She had no constitutional diathesis or dyscrasia, nor any abnormal condition of the genital tract, but unless treatment were instituted early after becoming pregnant and faithfully continued, abortion would inevitably follow. The treatment of this and similar cases recommended by the Doctor is quiet, hygienic measures, tonics, phosphates,

black haw, Jamaica dogwood, etc. Dr. Lucy J. Utter followed with a discussion of the "Constitutional Causes of Abortion."

Dr. C. D. Aaron presented a paper on the subject of the "Relation of Hemorrhage of the Stomach to Menstruation." He stated that patients suffering from menstrual gastric hemorrhage always present symptoms of indigestion, and the examination of the stomach contents after a test breakfast reveals the presence of blood. Therefore he concludes that when a patient exhibits symptoms of indigestion during a menstrual period in which the flow is scanty, gastric hemorrhage must be suspected, even though vomiting does not occur.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

The regular meeting of this Association was held in the rooms of the society on Monday evening, February 28. Dr. J. Flinterman read the paper of the evening, entitled "Neurasthenia." He said neurasthenia embraces a group of functional disturbances of the nervous system. The importance and the seriousness of the physical and mental condition of the individual suffering from this affection are very often disregarded, the prognosis is not conscientiously considered, and the relation of this affection to other functional disturbances is not properly appreciated.

While the growth of clinical medicine has for the last forty years caused a one-sided investigation of such diseases for which an objective basis could be found, the physical examination, the chemical reaction, the improved microscopical technique have inaugurated a growing activity in the field of scientific research of the facts observed in the clinic, and the development of clinical diagnosis in the majority of diseases and affections of different organs has become dependent on the objective changes which could be demonstrated by the new method of scientific observation. The increasing knowledge of the importance and extent of the pathological changes, and the fact that by this knowledge we are enabled to explain the clinical symptoms, have resulted in underrating other means of observing and examining the sick. Principally does this occur when we have to deal with the functional diseases of the nervous system.

Neurasthenia has been styled a disease of modern civilization. Beard has been accorded the credit of being the first to give a definition and description of neurasthenia. Beard's merit consisted in selecting a group of symptoms, changing and transient in their nature, and separating them from symptoms observed in more serious cases of fully developed neuroses and psychoses. Dercum defines neurasthenia as a condition in which there is more or less marked and persistent diminution of nerve energy together with an increased reaction to external impressions. In other words, we have two principal symptoms—nervous weakness and nervous irritability. It is very interesting to know that Dr. Van Dusen, of Kalamazoo, Mich., first used the term neurasthenia in the supplement to the Biennial Report to the Michigan Asylum for the Insane in 1867, under the heading of "Observation upon a Form of Nervous Exhaustion (Neurasthenia) Culminating in Insanity."

Binswanger considers neurasthenia as an affection which is on the border-

line between the undeveloped neuropathic disturbances and the fully established neuroses and psychoses. The majority of authors at the present day regard neurasthenia as a group of symptoms marked by an irritable weakness of the whole system. Weakness, aggravated liability to exhaustion, and increased irritability as manifestations of fatigue are physiological phenomena, but become pathological at the moment the intensity and duration get out of proportion to the previous work done and to other causes active in the case. If we keep in mind this fact of the disproportion between the symptom of fatigue and the amount of work done, in this way will we be able to understand the cases which come under our observation.

The pathology of neurasthenia is not yet satisfactorily explained. Many authors agree with Erb, who believes that in this disease we have to deal with very minute molecular changes in the central organs of the nervous system. The Doctor here described in an interesting manner the neuron theory as interpreted by Golgi, Ramon, and His, the latter of whom expressed the opinion that besides the cells of the ganglia and the nerve fibers there is an amorphous intermediate substance into which every stimulus has to pass when conveyed from one system to another, hence it becomes clear that the normal nerve functions are essentially dependent on the proper nutrition of this intermediate substance.

It is certain that the neurasthenic constitution is a very important factor not only in functional but also in organic diseases of the nervous system. The disease undoubtedly has its basis in a majority of cases in this inherited neuropathic constitution. Neurasthenia does not always manifest itself even in the presence of this existing predisposition. There are cases of decidedly inherited disposition where as a result of a well regulated life and other happy circumstances not a single symptom of nervous affection becomes manifest. The disposition even can be eradicated. The majority of neurasthenic cases will show an innate disposition, but the latter is not sufficient to develop the disease—there must be some other factor producing the affection—overexertion, mental or physical, leading to exhaustion of the nervous system.

Etiology: In the young bad hygiene, serious disease in childhood, improper education, overburdening in school, bad example—in short, all factors which lay the foundation for neurasthenia in later life; in adults overindulgence in venery, excessive use of tobacco, mental and physical overexertion, poor fitness for trade or profession selected, improper division of rest and work, privation, worry, and disappointment—all these factors lead to the development of neurasthenia. Influenza is a disease which is more than any other infectious disease the cause of neurasthenia, and cases following influenza are serious, long continued, and not readily submissive to treatment. The course of neurasthenia is invariably chronic.

The prognosis is dependent more on the degree of hereditary taint and the duration of the symptoms than on the seriousness of the condition.

A review of the treatment is promised by the Doctor in a subsequent paper.

The discussion which followed the reading of the paper was engaged in by Drs. Hitchcock, Warren, Carstens, Anderson, and Walmsley.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE SURVIVAL MOVEMENTS OF HUMAN INFANCY.

Among the methods whereby certain epochs of unrecorded human history are conjectured, few have proved more satisfactory than those which have taken for their field of study those structural and functional vestiges of which the human organism supplies so many examples. One of these glimpses into the prehistoric is afforded by an article in a recent number of "Brain," in which the writer devotes considerable study to what he terms the "survival movements of human infancy." He first remarks on the purposeless character of the early limb movements of new-born children. These differ in form and rhythm from those of later date, and are probably similar to those which are present *in utero*. These are usually known as spontaneous or stretching movements. They serve no purpose. By the end of the sixth month of life they have completely disappeared, having been supplanted by movements indicating idea and intention.

Though these movements are purposeless, so far as individual life is concerned, they are not so as regards the development of the race. They are vestiges of functions of the limb which were probably of prime importance to the members of the race at another time. Like the pineal gland and the appendix vermiformis, they testify to certain conditions man has almost outlived They speak of a past so long ago that the distance man is now removed from it can hardly be traversed. They give us glimpses of an ancestral tree which, if antiquity be the criterion of value, should positively thrill with delight the members of the Society of the Descendants of Colonial Governors, or those of that new association who crave the personal distinction of being descended from the Barons of Runnymede.

The survival movements of infancy furnish another link in the chain of evidence substantiating descent from arboreal ancestors. Darwin has said of these: "Our progenitors, no doubt, were arboreal in their habits and frequented some warm forest-clad land. At a still earlier period the progenitors of man must have been aquatic in their habits, for morphology plainly tells us that our lungs consist of a modified swim-bladder which once served as a float. The clefts on the neck in the embryo show where the branchiæ

once existed. We apparently still retain traces of our primordial birthplace, a shore washed by the sea."

Analysis of the spontaneous movements of the human infant readily lends itself to such an interpretation of the early racial struggle. These movements are easily grouped into three classes: (1) those of simple progression, aquatic, terrestrial, or aerial; (2) those of prehension or of arboreal existence; (3) those of manipulation, including the destruction or breaking up of food, or the search for it by digital investigation into holes and crannies.

The first limb movement noticed after birth is usually the movement of paddling. The elbows diverge and the palm is pushed outward in a way that would occur in locomotion in a fluid medium. This movement, which is one of the most fundamental, suggests aquatic or amphibian life the more closely it is observed. As the fingers become extended, a rotary motion of the wrist occurs by which the ulnar border and the little finger are lifted outwards.

The survival movements of prehension are numerous. Those described by Dr. Louis Robinson some years ago will be remembered. He showed from experiments on some sixty babies that the inherited prehensile power supplied these with sufficient strength to sustain their own weights on a horizontal bar. Various other seizing and catching movements are also to be noted.

The survival movements of digital examination include various poking and searching manipulations, principally of the index-finger. Various experiments will suggest themselves for their demonstration.

The question of inherited and fundamental movement is an exceedingly interesting one. It should make child-study of intrinsic importance in medicine. The evolutionary notion of development in general leads us to believe that the latest acquired function is the least stable in persistence. In the gait of the drunkard or ataxic, if carefully studied, might probably be found the same uncertain characteristics of aquatic and terrestrial progression. These curious facts testify to an ancestry man has almost outlived, but the evidence of which, with all his pride, he is unable entirely to efface.

EDITORIAL NOTES.

Russian Medicine.

If the pretensions of certain Russian doctors are justified, the claims of Russian medicine have not been appreciated in the way they deserve. At a recent meeting of a medical society in St. Petersburg, Dr. Kakoutschkin made a speech in which, speaking of the recent International Congress, he said that his countrymen had learned nothing from it, and that the foreign members had shown great ignorance of Russian medical literature. Professor Ott said that the Germans had been the great teachers of the Russians, but that Russia was getting ahead of its teachers. Men with a great name in their own country had treated certain matters as new which the Russians already knew all about several years ago. Berlin surgery, Ott declares, confesses to thirty per cent. of hernias of the cicatrix after abdominal section. Russian surgeons find hernia in only three per cent. of their cases. Several operative procedures, such as

vaginal fixation of the uterus, already in disfavor in the land where they were devised, were never accepted in the Empire of the Czar. Professor Ott said that the Russians had learned at least one interesting fact at the Moscow Congress. So far from being behind their foreign brethren, they were in some respects much in advance of them. It was much to be regretted that foreigners did not master the intricacies of the Russian language. Unfortunately, this difficulty of mastering the Russian language is the one which makes it next to impossible to ascertain the exact truth in regard to where Russian medicine really stands. It can, however, be easily believed that it participates in the enterprising spirit now manifested throughout the Russian Empire.

The History of the Clinical Thermometer.

A letter from Dr. Edward F. Wells, of Chicago, contains certain interesting details regarding the history of the clinical thermometer. He writes as follows: "Dr. Donald Maclean, in his very readable 'Personal Reminiscences of Syme,' says of the year 1859 that 'the clinical thermometer had not then been invented.' In 1745–46 Cleghorn encountered, in Minorca, an epidemic of pneumonia and published his observations upon the same in a volume entitled 'Epidemic Diseases of Minorca,' London, 1762. On page 261 of this work, in describing the symptoms of the disease, he says: 'The internal heat was in several very moderate; in some, less than natural; but for the most part it was so intense as to raise the thermometer to the 102nd degree, and often in the afternoon to the 104th.' The history of the clinical thermometer, since the idea of using it in measuring the temperature of the body in disease first occurred to Sanctorius in the earliest years of the seventeenth century, is enveloped in considerable obscurity, yet it is certain that, with the published observations of Donne (*Arch. Gén. de Méd.*, 1837), Zimmermann (Prager Vierteljahrschrift, 1852), and others, it is not historically correct to say that the clinical thermometer had not been invented in 1859, however true it may have been that it was not in common use."

Immunity to Viper Poison.

Among the opportunities for experimental immunization, those afforded by snake-bite are at present being widely utilized. An extraordinary immunization to this poison is reported to the French Academy of Sciences by M. Phisalix, by the use of cholesterin extracted from gall-stones. Vegetable cholesterin extracted from the common carrot had previously been demonstrated to possess similar powers. Tyrosin has lately been tried for viper poison, with much success. Vegetable tyrosin abounds in the dahlia, and Phisalix found that by injecting a juice from tubercles of the dahlia he imparted all the immunity conferred by tyrosin. As this quantity of the dahlia juice would contain but little tyrosin, he concludes that some other immunizing principle is contained in it. This is said to be the first known example of a vegetable juice conferring immunity against venom. If the vegetable kingdom possesses these anti-venomous juices, it is almost surprising that they have not been empirically discovered. This branch of research may be expected to yield important results to the industrious investigator.

ITEMS AND NOTES.

Arizona has at last adopted a medical examining board.

An International Health Exposition will be held in New York in April.

The Tsarina is reported to be suffering from a mild attack of measles.

Mr. Gladstone, it is said, has found music a great relief during his recent sufferings.

In Vienna recently, a medical student, aged 70 years, died just before his final examination.

The University of Maryland and the Johns Hopkins University have both asked for State aid.

Paris physicians are beginning to complain that the profession in that city is becoming too crowded.

Apostoli claims to prevent cutaneous lesions in skiagraphy by forming a metallic circuit with the earth.

Dr. Wm. Pepper has been prominently mentioned by his friends as an independent candidate for Mayor of Philadelphia.

Sir William Jenner has just celebrated his eighty-third birthday. He was for many years considered one of the greatest of clinical teachers.

Influenza still prevails in London. The type is mild, but there are many malignant cases. The disease has also appeared in many country districts.

A company has been formed to establish hospitals all along the route of travel to the Klondike. The first station to be organized will be Dyea.

Two brothers and three sisters, living in the same house in a small Irish village, developed acute mania suddenly, and without assignable cause.

The Belgian Government offers a prize of $10,000 to any one who will discover a chemical that will take the place of phosphorus in match-making.

A French surgeon was fined and imprisoned for causing the death of a patient in doing a laparotomy, by leaving a pair of forceps in the abdominal cavity.

The Pasteur Institute of Paris has been enriched by a donation of $8000, given by Mme. Emile Durand for the purpose of prosecuting further researches on tuberculosis.

THERE has lately been passed a law by the Texas State Legislature, whereby all physicians practising in the State have imposed upon them an "occupation" tax.

A LICENSE is now required to practise medicine or surgery in the Hawaiian Islands, such license to be granted only upon the written recommendation of the Board of Health.

A YOUNG English woman, Miss Hamilton, who successfully studied medicine in Brussels and went to Calcutta to practise, has become medical adviser of the Emir of Afghanistan.

M. PHISALIX, the French authority on the venoms of insects and reptiles, has established beyond a doubt that the poison of the hornet renders one immune to that of the viper.

IN INFANTS, according to Eustace Smith, pain in the head is indicated by wrinkling of the brow; pain in the chest, by sharpness of the nostrils; abdominal pain, by a drawing of the upper lip.

RECENTLY, in Paris, Dr. Samuel Pozzi operated on Sarah Bernhardt, the French actress, for the removal of an intraligamentary cyst. The operation is reported to have been entirely successful.

SIR T. SMITH, of London, recently made the statement that little more was known of the nature of mammary cancer than was brought out in the discussion held by the Pathological Society in 1874.

OWING to advanced age, he being now over 76 years old, Professor Von Esmarsch has announced his intention of resigning the chair of surgery at the University of Kiel. He was appointed to this chair in 1857.

DR. STOCKER, of Glasgow, believes that the most distressing movement of a ship, the pitch—which is the chief cause of seasickness—can be antagonized by means of a full respiration taken deliberately with each descent of the ship.

A FIRE recently broke out in one of the plague hospitals at Bombay. There were ninety-seven patients in the hospital at the time, twelve of whom were Europeans. All were saved from the flames, but three died as the result of the moving.

THE sixty-sixth annual meeting of the British Medical Association will be held in Edinburgh, July 26 to 30, 1898, under the chairmanship of Sir Thos. Grainger Stewart, President-elect. It is twenty-three years since the Association has met in that city.

IT NOW COSTS $10 to spit in a street car or public building under Government control in the District of Columbia. For a similar offense a California millionaire was recently sentenced to twenty-four hours' imprisonment in the county jail at San Francisco.

At a late session of the Paris Hospital Medical Society, Thoinot reported the case of a man who ruptured his aorta in a fit of anger and died a few hours later, after suffering acutely from the pressure of an enormous subpleural hematoma upon the celiac plexus.

It is reported that the curative serum for the plague, discovered by Dr. Lustig, an Italian professor of experimental pathology, has proved so successful in the treatment of the plague in India that the Bombay authorities have telegraphed for a large supply of it.

A Chinese proverb says: "The greatest enemy to the health of men is woman. The worst enemy to the health of women is man. Study deeply into the diseases of the two sexes, and you will learn that, for a long life, it is necessary to establish a separation."

A writer in *Public Ledger* of Philadelphia says that it is the custom at most hospitals in that city to pay, with a drink, the policeman directing accident cases to them; while another writer says that certain hospitals pay one and two dollars in cash for each patient obtained.

A new crusade against vivisection has been started in Baltimore. It is headed by Cardinal Gibbons, Bishop Paret, and other prominent citizens. An antivivisection society has been formed, and the medical school of Johns Hopkins University has been selected to suffer from its attacks.

Mr. Jonathan Hutchinson asserts that the pain of lumbago is not in the lumbar muscles nor indeed in the loins at all. "If we wish," he says, "to use this word with precision, we should understand it to denote a liability to pain on movement across the sacrum or in the sarco-iliac synchondrosis."

In ascending Mt. Ararat last fall, Dr. Stoeber, a physician and geologist, was frozen to death. The late Noah, who lit on the mountain some years back (remarks a western paper) made no complaint of the temperature. Anything in the line of real estate, hot or cold, came in very handy about that time

A prominent physician says: "I notice a falling off in my office practise during the bicycle season and a general improvement in the condition of such patients as, having no organic lesion, ride the wheel during the summer months. The greatest danger in bicycle riding is to the doctor's pocket-book."

Discussing the vivisection controversy, the editor of *Appleton's Popular Science Monthly* says: "We may be sure that the more animals become the subjects of scientific study and treatment, the better on the whole will be their lot. Science and humanity go hand in hand, for the simple reason that *science is human.*"

There is now before the Ohio State Legislature a bill, relating to the punishment for the crime of rape, which may become a law. The object of this bill is to render a man who is convicted of a criminal assault upon a female, and particularly upon any child under fourteen years of age, liable to castration.

As a memorial of the Queen's Diamond Jubilee the Americans residing in England have endowed a bed in perpetuity in each of the five leading London hospitals, each bed being endowed with the sum of £1000. The beds will be especially for the use of Americans, but other patients may be received if all the Americans are well.

It is reported that over forty victims of the cocaine habit, induced largely by the use of popular preparations as catarrh cures, appeared in the police courts, etc., of Chicago within two or three months of last year. The evil was so noticeable as to cause the introduction of an ordinance prohibiting the sale of these dangerous remedies.

The somewhat startling announcement is made that at the next meeting of the International Medical Congress, to be held in Paris, Dr. Mandon will present, on behalf of the Emperor Menelek of Abyssinia, a communication by that monarch on "Smallpox and Preventive Vaccination as it has been Practised in Abyssinia for Two Centuries."

Autumnal Fecundation. — Before the Société de Biologie of Paris, Trouessart described a method of fecundation prevailing with many hibernating animals such as the bat and the adder, whereby, by the storing up in the tubes of the female of spermatozoids, these are utilized for gestation after the period of hibernation has elapsed.

A young physician, practising in a small town in New York, recently brought suit against a young lady, a former patient, to collect a bill of $60 for professional services. The defendant's attorney contested the bill, which he characterized as exorbitant, alleging that a majority of the calls were of a social nature, and he has put in a counter claim of $100 for time lost by his client through these calls.

It is reported that the medical section of the National Exposition to be held at Turin, Italy, in 1898, will devote its attention largely to the subject of premature burial. Reports and exhibits already in preparation are to be presented. The aim of those directly interested in the sectional work seems to be to induce all governments to make laws requiring dead bodies to be kept a certain fixed period before burial.

It is computed by a contributor of an inquiring mind to an English journal that a healthy man with a good appetite and average drinking capacity assimilates into his system during seventy years ninety-six and one-half tons of material, solid and liquid; or, putting it in another way, and assuming his weight to be 170 pounds, he consumes over twelve hundred and eighty times his own weight of nourishment in the course of a lifetime.

Tattooing, according to the *Press and Circular*, was an ancient method of treatment, the forerunner of scarification. A mummy discovered in Egypt in 1891, that of a priestess of Hathor, some 5000 years old, displays traces of a methodical tattooing of the abdomen, suggesting that the cause of death was generalized peritonitis. Tattooing is still resorted to in Egypt as a remedy for periostitis, arthritis, synovitis, and for migraine and neuralgia.

A FAMOUS English physician, when quite a young man, was placed in temporary charge of a patient, and, full of the weight of his unaccustomed responsibility, his countenance grew longer and longer. When he was leaving one day, the lady's husband followed him. "I greatly appreciate the anxiety you feel for my poor wife," he whispered, "but please don't let her see it again, for, after you left the room, she asked me if you were the undertaker."

DURING his lectures, recently delivered in this country, Dr. Nansen, the famous Norwegian explorer, again called attention to the healthfulness of the far north and the absolute freedom of the atmosphere from all disease germs. This feature of polar life is sure to attract more attention as the region becomes more accessible and the food supply is more assured by progress in the art of preserving and condensing the kinds of nutriment suited to the climate.

THE American Pediatric Society is making a collective investigation of infantile scurvy, and earnestly requests the cooperation of physicians by making reports of cases. A notice to this effect has already been widely circulated. The collection of reports from the Western States has devolved upon Dr. C. G. Jennings, of Detroit, Michigan, and he is desirous that any having such cases under observation should fill in a blank which will be forwarded on application.

THE DISSECTION of cats and dogs is recommended as a legitimate school exercise for young children by Prof. Burt G. Wilder in *Science* of December 17. He says: "If it be legitimate to slaughter animals for food, it is even more so to kill them humanely (as with chloroform) in order to gain information. This is particularly true of the superfluous cats and dogs that lead miserable lives in most cities. Children should be taught that the greatest kindness toward such is a speedy and painless death."

A MEMORIAL to the late Professor Billroth was lately unveiled in the University of Vienna. A very large and representative assembly, including many of the late surgeon's most eminent pupils, attended the ceremony. After Professor Gussenbauer had delivered a speech in which he described the career of Professor Billroth, the memorial was formally presented to the University by the members of Professor Billroth's family, and accepted by the rector in the name of the University.

THE SECOND quinquennial prize of $1000, under the will of Samuel D. Gross, will be awarded January 1, 1900. The prize shall be awarded, every five years, to the writer of the best original essay, not exceeding 150 printed pages, 8vo, in length, illustrative of some subject in surgical pathology or surgical practise, founded upon original investigations, the candidates for the prize to be American citizens. The successful competitor shall publish his essay in book form and deposit a copy in the Samuel D. Gross Library of the Philadelphia Academy of Surgery. All interested in further information should address Dr. J. Ewing Mears, 1429 Walnut Street, Philadelphia, Pa.

NEW PUBLICATIONS.

THE PSYCHOLOGY OF SUGGESTION.

This is an intensely interesting book, and on the subject of which it treats is the most important one which has of late been published. The conception of the subjective and objective mind has become widely prevalent in a general way, though the theory underlying this notion has been somewhat lax in its terms and slipshod in its statements. Dr. Sidis has done much to strengthen this theory and deprive it of vagueness. The separation of consciousness into the self-conscious and personal, and sub-conscious and impersonal, the relation of these two selves to each other, and their different responsiveness to suggestion, form the theme of the present work.

The author's study of the sub-conscious self has been according to the psychological method of Wundt, and an elaborate series of experiments have been conducted in order to fortify his conclusions. The primary self alone possesses true personality, will, and self-control. The sub-conscious self is suggestible and servile to the influences of all kinds of morbid conceptions and impulses. Certain disaggregations of these forms of consciousness constitute the basis of many abnormal mental states. Not only are all the phenomena of double personality accounted for by this theory, but a new understanding of the insanities is vouchsafed. Definitions of paranoia and kindred states are given in the terms of this new knowledge.

Very interesting also are the social bearings of these notions on this duality existing in consciousness. The author's account of hypnotism of the crowd and suggestion epidemics is most entertaining, though perhaps his judgment on certain revivalists and religious enthusiasts are somewhat harsh.

The book is one of unusual merit, and while it is one which will appeal primarily to those having a scientific appreciation of the neuron and other fundamental physiological data, it contains enough matter of general interest to commend it to a very wide circle of readers.

The Psychology of Suggestion. A Research Into the Sub-conscious Nature of Man and Society. By Boris Sidis, M.A., Ph.D., Associate in Psychology at the Pathological Institute of the New York State Hospitals. With an introduction by Prof. William James, of Harvard University. New York: D. Appleton & Co., 1898.

ORTHOPEDIC SURGERY.

The author states in his preface that he has endeavored to make his book practical. That he has succeeded is borne out by the fact that he has given the profession a work fully up to date in a pathological sense. In the matter of treatment, the author displays keen judgment in eliminating everything calculated to confuse, and adopting only such methods as are easy of execution and effective in result. All the most modern methods of treating deformities, both by operative and mechanical means, are fully discussed, and these are well illustrated by woodcuts, in which the book abounds.

The work can be commended as one worthy a place in the library of all practitioners of surgery.

Orthopedic Surgery. By James E. Moore, Professor of Orthopedia and of Clinical Surgery in the College of Medicine of the University of Minnesota. Illustrated; cloth price, $2.50. Philadelphia: W. B. Saunders.

CONSTIPATION.

This is a practical book on a most important subject, and Dr. Illoway has rendered a signal service to suffering humanity by thus bringing the consideration of this universally prevalent disorder within the limits of a systematic treatise, the first, it is believed, that has appeared in the English language.

The anatomy and physiology of the intestinal tract are well described and a vast amount of interesting and valuable information bearing on these points given, together with the etiology, symptomatology, diagnosis and consequences of acute and chronic constipation, in fourteen chapters,

while nineteen chapters are devoted to an almost exhaustive discussion of mechanical, dietary and medicinal methods of treatment. Constipation in infants and children is considered separately in fifteen additional chapters.

There is so much to commend in this book, which is filled with common-sense advice, well-chosen illustrative cases and excellent methods of treatment, that we can only urge upon those who have the best interests of their patients at heart to possess themselves of the volume, study its teachings, and faithfully practise its precepts.

It is not too strong an assertion to venture that this is one of the most important works that has been given to the profession within the past decade. The typography, illustrations and binding are all excellent and maintain the reputation of the house from which the volume issues. W. P. M.

Constipation in Adults and Children, With Special Reference to Habitual Constipation and its Most Successful Treatment by the Mechanical Methods. By H. Illoway, M.D., formerly Professor of the Diseases of Children, Cincinnati College of Medicine, etc., etc. Illustrated; pp. 495. New York: The Macmillan Company, 1897.

RURAL HYGIENE.

The diffusion of sanitary knowledge in rural districts is the praiseworthy object which the author of this little book attempts to accomplish. He reviews such subjects as water-supply, waste-disposal, soil, habitations, disposal of the dead, and treats of certain climatic conditions. The information accorded is in conformity with the best knowledge of the day. The sanitary missionary will find this little book a useful one to leave behind him when he desires to secure in the household more careful consideration of his counsels.

Outlines of Rural Hygiene. For Physicians, Students, and Sanitarians. By Harvey B. Bashore, M.D., Inspector for the State Board of Health of Pennsylvania. With an Appendix on the Normal Distribution of Chlorine by Prof. Herbert E. Smith, of Yale University. Illustrated with twenty engravings; 5½ x 8 inches; pp. vi–84. Extra cloth, 75 cents net. The F. A. Davis Co., Publishers, 1914–16 Cherry St., Philadelphia; 117 W. Forty-second St., New York City; 9 Lakeside Building, 218–220 S. Clark St., Chicago, Ill.

THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

The proceedings of this society constitute an important volume. The papers all exhibit a high degree of merit. There are a number of contributions which deserve a wider notoriety than will be secured by their inclusion in the present volume. It can only be recommended that all persons interested in mental science should secure themselves a copy of these proceedings. The work is excellently illustrated, with half-tones and tinted plates. Great credit is due those responsible for the presswork.

Proceedings of the American Medico-Psychological Association at the Fifty-third Annual Meeting Held in Baltimore, May 11–14, 1897. Published by American Medico-Psychological Association.

THE ESSENTIALS OF EXPERIMENTAL PHYSIOLOGY.

This book consists of a short account of those experiments which can be carried out by students, and a selection of experiments suitable for class demonstrations. It would seem to be a work of great practical utility to the demonstrator in the physiological laboratory. It is replete with illustrations and tracings. The work is issued from the Medical School attached to St. Thomas' Hospital, London.

The Essentials of Experimental Physiology. For the Use of Students. By T. G. Brodie, M.D., Natural Physiology, St. Thomas' Hospital Medical School. London: Longmans, Green & Co., 1898.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

The transactions of this association form a very handsome volume excellently illustrated. The scientific excellence of the contributions argues that in the Emerald Isle medical science is in a virile condition.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

A Case of Fecal Impaction.

Dr. Joseph M. Mathews, of Louisville, Ky., in the February number of the *Medical Times*, reports the following case of fecal impaction:

The patient, a man 72 years of age, with a robust constitution and a fine physique, had enjoyed excellent health until about two months before he was seen by Dr. Mathews. On presenting himself he complained of a frequent desire to evacuate his bowels and involuntary passage of feces, with some difficulty in passing his urine; also of a heavy weight in the perineum or a sense of discomfort in the rectum all the time, as if desirous of going to stool. On examination of the rectum by the finger the prostate was found to be perfectly normal, and no pathological change in the rectum could be detected. However, further and higher examination revealed a large mass of fecal matter in the sigmoid flexure. The following day, upon the introduction of a speculum, a fecal mass as large as a fetal head was discovered lodged in the sigmoid flexure. It was of the consistence of putty, nearly of glue, a white mass, so much in amount that the operator was only able to remove about one-tenth part of it by curettage, and that with the aid of a stream of water.

The next morning the patient was given a purgative, and high irrigation of the colon effected. Five days of this treatment succeeded in removing the entire mass. When this was accomplished all symptoms disappeared at once.

The author remarks that he had never seen but two impactions of the sigmoid flexure, and they were both caused by eating oatmeal. The patient whose case is here presented had told the author, having some disturbance of the bowels, he had concluded to live upon oatmeal almost entirely. Dr. Mathews, in conclusion, says he thinks it well to advise aged people to abstain from too free a use of this cereal.

The Scientific Treatment of Chronic Gonorrhea.

"Chronic Gonorrhea: Its Scientific Treatment" is the title of an article by T. C. Valentine, of New York, in the January number of the *Clinical Recorder*. The paper summarized brings out the following points:

1. There are no incurable cases of chronic urethritis.

2. All drugs, suggested for the treatment of chronic gonorrhea, soon are relegated to merited oblivion.

3. The only efficacious method of treating chronic gonorrhea is by dilatations, as proposed by Oberlander, followed by irrigations, without a catheter, of the urethra or bladder, or both.

4. Urethral fever, or other disturbances, do not supervene after urethral instrumentation followed by irrigation.

5. Carefully conducted dilatations and irrigations are not painful.

6. Gradual, careful pressure by dilatations is preferable to the use of sounds in the majority of cases. The effect of dilatations is to stimulate absorption of the infiltrations.

7. Functional disturbance and nervous symptoms are improved very early in the treatment.

8. Chronic urethritis can be exceptionally diagnosed, successfully treated, but never pronounced cured without the aid of the urethroscope.

MEDICINE.

Asthma Treated by Antidiphtheritic Serum.

L. Leveroid (*Rev. Méd. de la Suisse Rom.*, Nov. 20, 1897) was induced to try antidiphtheritic serum in the treatment of asthma. Seven cases of asthma were thus treated, with the following results: First three cured: (*a*) Male, aged twenty-four. Attacks every night for six years. Treated without result. Complete cure after using ten cubic centimeters of Roux serum. No relapse when seen six and a half months later. (*b*) A female, aged forty. Attacks every night for seven months. Other treatment without effect. Cured by three injections of three cubic centimeters, and remaining quite well when seen five months later. (*c*) Male, aged thirty-six. Shortness of breath since bronchitis eight years ago; for last month attacks every evening between 5 and 11, and at other times fatigued. Other treatment unavailing. Cured in two months. The injections at first caused the attacks to be less serious. An injection is easily given whenever an attack threatens.

The Cure of Diabetes.

Prof. Pietro Lupo, of Naples, reports in the February number of the *Canadian Practitioner* two cases of diabetes followed by complete cure. He says:

"For two years I have been persuaded that uric acid diathesis, diabetes, oxaluria, etc., are different phases of one single morbific entity, and since I knew of no single case truly cured on the meat diet, and since I experienced in myself the very beneficial effects of a diet exclusively vegetable, banishing wine absolutely and rendering the blood very alkaline—in myself who used to suffer in a dreadful manner, so as to almost make me attempt suicide—I made bold, by way of experiment, to prescribe the same diet, exclusively vegetable, for the first case, and saw in this patient, too, the beneficial results of such a dietary. With greater hope of success I ordered the second case to take the same diet, and in him the effects have been truly marvelous. In the vegetable dietary I excluded nothing—all edible soups, peas, beans, saccharine fruits, including the grape. I allowed everything, and the results have been as above.

"In my second case it was noticed that after two months of the vegetable diet the analysis of the urine showed not only a complete absence of sugar, but the presence of many crystals of oxalate of lime, from sixty to seventy for each field under the microscope. It might seem that this was owing to the

vegetable diet, especially as they had not been noticed when the urine was diabetic. And so one might fear that the patient had only changed his diabetic condition for an oxaluric one, and we would then not know how to feed him, as the exclusively meat diet and the mixed diet had done no good. But I, firmly convinced, instructed the patient to continue the vegetable diet, and the result has been that the oxalate of lime, too, has disappeared from the urine.

"One certainly cannot draw decisive inferences from these two cases, especially as the etiology of diabetes is multiple; but we can, I think, conclude that many diabetics can be cured on the vegetable diet. I have under my care at present a case in which the analysis of urine shows more than 100 crystals of oxalate of lime for each field of the microscope. This patient is improving on the vegetable diet."

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,
Microscopist to Harper Hospital, Detroit.

The Widal Test.

Dr. W. Gillman Thompson, in the *British Medical Journal* of January 22, has gathered data from 503 cases of enteric fever, all of which were subjected to the Widal test. His conclusions are as follows:

1. While the test is positive in the large majority of cases of enteric fever, and negative in the greater number of other diseases, there is a margin of error of eleven to twelve per cent. on each side of what might be called the normal line, between cases in which the test fails where it ought to succeed, and succeeds where it ought to fail, in order to make it of real clinical value.

2. This total of twenty-three per cent. of possible error unfortunately includes just those cases in which there is the greater doubt upon the purely clinical side.

3. As a genuine diagnostic aid, the test has about the value of the diazo-reaction in typhoid urine or the study of leucocytosis in pneumonia; that is, it is confirmatory in connection with appropriate symptoms, but misleading if positive reliance be placed upon it.

4. The fact that an expert bacteriologist is required to make the test is offset by the ease of transportation of specimens of dried blood, which long retain the power of reaction; and it is greatly to be hoped that further possible improvements in technique may place this most ingenious test upon a firmer practical basis than can at present be claimed for it.

Tubercle vs. Smegma Bacilli.

Dr. H. Lasar's article on the smegma bacilli in the *Münchener Medicinische Wochenschrift*, No. 43, 1897, brings out a point of clinical importance. If after staining urinary sediment for tubercle bacilli (Gram's method) we find little red rods, we cannot say they are tubercle bacilli without excluding

smegma bacilli. To differentiate between the two, a culture from the sediment will show a growth after twenty-fours with smegma bacilli, while tubercle bacilli require ten to fourteen days. Animal inoculations take too long; many weeks may elapse before the diagnosis of tuberculosis could be made.

THERAPEUTICS.

Tenaline: A New Vermifuge.

Hobday, professor of therapeutics, Royal Veterinary College, London (*Journal of Comparative Pathology and Therapeutics*, December, 1897), relates certain tests made on animals, with a view of determining the value of tenaline, a new preparation recently made from the areca nut, and which retains the tæniafuge alkaloids of arecaine and guvacine without the toxic principle arecoline. It has the advantage over powdered areca nut of being more easily administered as its bulk is small, and a purgative is not a necessary adjunct. Its action on the bowels is to increase secretion and stimulate peristalsis so that no worms can be retained. Its general effect seems to cause expulsion of the head as well as the segments, thus getting rid of the most troublesome part of the parasite. The dose is one minim for each pound of body weight, and it is advised that it should be administered pure or with the addition of a little water. Tenaline is considered to be a perfectly safe vermifuge. That it has a toxic action was illustrated by the case of a Maltese terrier in which one drachm was given subcutaneously. The dog died in ten minutes from respiratory failure. Tenaline is unsuitable for subcutaneous use.

Medicated Siphons.

Smester, before the Société Thérapeutique (*Progrès Médical*, Jan. 1), demonstrated the utility of seltzer-water siphons for washing the mouth. Any desired medication could be applied in this way.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,

Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

Antipyrin for Nursing Women.

As the number of drugs which pass over into the breast milk of nursing women is comparatively limited, every new addition to the list is of therapeutical importance for guidance as to remedies which may be safely administered during the period of lactation. Fieux (*Bulletin Médicale*, Sept. 5, 1897) has investigated the action of antipyrin in this respect and finds that this preparation appears unchanged in the milk, especially when administered in large doses (thirty to sixty grains), in from five to eight hours after administration, the maximum period for elimination being eighteen hours. The

amount of antipyrin thus eliminated is exceedingly small, less than fifty parts to the thousand; it does not affect in any way the quality or the amount of the secretion, and the ingestion of such milk does no apparent injury to the neonatus.

Drugs Which May or May Not Be Prescribed During Pregnancy.

Boissard (*Journal des Praticiens*, Aug. 28, 1897) states that drugs having an ecbolic action are always to be avoided except in cases of contracted pelvis where it is thought necessary to interrupt the utero-gestation. Quinine, sodium salicylate, narcotic, analgesic and anesthetic remedies may be employed when indicated without injury. Mercury finds its application in known specific cases, and purgatives during the whole course of pregnancy should be administered without fear of producing untoward or dangerous results.

PEDIATRICS.

UNDER THE DIRECTION OF CHARLES G. JENNINGS, M.D.,

Professor of Practise of Medicine and Clinical Diseases of Children, Detroit College of Medicine.

Age of Parents, and Its Influence on Their Progeny.

Jarosie has brought an interesting subject under the notice of the Director of the Hungarian Statistics Bureau, wherein he argues, from 24,000 carefully investigated cases, that the offsprings of a parent between twenty and twenty-five years are likely to be weak and feeble, but between twenty-five and forty-five years, strong. The mother has most robust children between twenty-five and thirty-five. More healthy children are born when the mother is ten years younger than the father — ten per cent. more favorable than when about the same age.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

The Texas Screw-worm.

Dr. C. M. Robertson reports a case of this parasitic affection in the current number of the *Laryngoscope*, and reviews to some extent the literature of the subject. The case reported occurred as far north as Illinois, though the patient had recently returned from a journey to the southwest, and it is not probable that primary infection is likely to occur in the north temperate zone. No treatment seems to have controlled the course of this case, which lasted over a period of seven days. From the symptoms recited there was evidently an early invasion of the cranial cavity and intestinal tract and profound septic poisoning.

The affection, though rare in this latitude, causes wide-spread suffering in the tropics. Elevated situations are exempt, as in Mexico it does not occur at altitudes above 4200 feet. Very few cases have been described in Europe.

The disease is caused by a fly described by McKenzie under the name of Lucilia hominivorax.

The insect lays its eggs within the nostrils, attracted thither by the odor of a chronic catarrhal inflammation or a specific or atrophic rhinitis. Each fly will deposit as many as 20,000 eggs. The larvæ soon become embedded in the mucous tissues. They cause more or less complete destruction of mucous membrane, denuding cartilage and bone, and in later stages seem to burrow through the bony plates. The prognosis is favorable if the presence of the larvæ is discovered early. Lahory met with but two fatalities in ninety-one cases.

Chloroform by inhalation or injection or direct application under cocaine anesthesia is often sufficient to effect a cure. Insufflations of calomel and alum have been used with varying success. The patient's strength must be carefully sustained by stimulants and nutritious diet. All visible larvæ are to be removed with forceps, and often sneezing will dislodge numbers of them.

Papilloma of the Tonsil.

Before the London Laryngological Society Dr. William Hill showed two tonsils, on the surface of each of which a papillary growth, about one-third of an inch in diameter, was seen. They had been removed from young adults suffering from chronic pharyngitis. Although common enough on the palate and pillars of fauces, the literature reports few of these neoplasms on the surface of the tonsils.

In the discussion Drs. Wingrave, Waggett, Butlin, Howie and Yearsley reported having seen a few such growths, though no one observer had seen more than two.—*Journal of Laryngology and Rhinology.*

Air Cyst.

At a recent meeting of the Gesellschaft für Aertze of Vienna, Professor Schrötter exhibited a boy in whom a swelling of a cystic nature could be seen on the vocal cords by the laryngoscope. It was further observed that this cyst altered its dimensions by different movements of the vocal cords. On closer observation it was found to be filled with air, but the cyst being perforated admitted of partially blowing up and collapsing. Schrötter designates it as a laryngocele interna.—*Medical Press and Circular.*

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,

Lecturer on Dermatology, Detroit College of Medicine.

A Contribution to the Study of Bleeding Stigmata.

The December number of the *Journal of Cutaneous and Genito-Urinary Diseases* contains the report of a very interesting case. The patient, a clergyman aged 46, gave the following history: For the past six years spontaneous

hemorrhage from various points of his body had occurred at irregular intervals, at one time six months elapsing before the hemorrhage ceased. A thorough physical examination was made; nothing of interest was detected other than that the hemoglobin and red blood-corpuscles were below normal, and that within the erythrocytes free granules of plasmodia malariæ, the forms described by Councilman, were visible. The question arose as to whether a man of average health may develop a malarial cachexia without having suffered previously from any of the recognized types of malarial fever. In a patient suffering from spontaneous hemorrhage of the skin in an aggravated form, and from profound depression of the system, pernicious anemia is not strongly suggestive. The history of the case excluded the possibility of its being one of bilious fever or of hemorrhagic malaria. On the other hand, the fact that the man lived in a most healthy country and had absolutely no enlargement of the liver or spleen, that under repeated observation the organisms gave no evidence of a cycle or of being associated with changes in the general condition of the patient, may be offered as serious objection to the suppositional diagnosis of malaria. Hyde took the view that the hemorrhages were all, though not consciously, self-produced.

From a thorough review of the literature more or less directly connected with this subject, it is concluded that repeated and prolonged hemorrhage from the skin of a subject of malaria, with eventual restoration of the health, is a rare occurrence. In the 616 cases of malarial fever reported by Thayer and Hewetson, no similar case is recorded. Two distinct classes of these phenomena may be recognized: One in which spontaneous hemorrhage occurs as a result of changes in the blood or as a consequence of disease of the spleen, liver, or kidney. To the second class of cases belong those in which in addition to the effusion of blood, spontaneous gangrene is often associated. In this class we are compelled to suspect fraud, practised either intentionally or unintentionally on the part of the patients, whose mental states often defy analysis.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

The Roentgen Rays in Ophthalmology.

The Roentgen rays have proved most valuable, in certain cases, in locating foreign bodies within the eyes. In the *Wiener Klinische Wochenschrift* of February 17, 1898, Stöckl, of Vienna, reports two interesting cases, where the *x*-rays exactly pictured the intrusive bodies within the eyes, after all other methods failed to locate them. One of the cases reported was the location of fine bird shot. In the other case the object was a sliver of copper.

THE MEDICAL AGE

VOL. XVI. DETROIT, APRIL 11, 1898. No. 7.

ORIGINAL CONTRIBUTIONS.

MATHEWS' VERSUS KELLY'S METHOD OF DEALING WITH DISEASE IN THE SIGMOID FLEXURE.*

BY JOSEPH M. MATHEWS, M.D.,

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Very recently there appeared in *Mathews' Medical Quarterly* an article describing a method of inspecting the sigmoid flexure devised by Dr. Horace Kelly. It consisted in the use of a cylindrical tube provided with an obturator which is similar to his cystoscope, except that it is much larger; the principle, however, being the same. Dr. Kelly inverts the patient to the knee-elbow posture and applies to the rectum manipulations, also similar to those used in his cystoscopy, the principle of which was applied years ago by Otis, and consists in atmospheric distention. This posture is often used by the gynecologist. It will be seen, then, that there is very little new in the Kelly method save the instrument.

It can be definitely said that in the scientific investigation of disease the rectum has been the very last of all portions of the body to participate. Those that have given investigation an impetus in this direction are yet living, except that eminent scholar and surgeon, Van Buren, who wrote a classical book on the subject.

A few decades ago the treatment of diseases of the rectum was wholly in the hands of the charlatan, and to him these cases were often referred even by the regular physician.

Referring to the title of my paper, I desire to call attention to the fact that whereas diseases of the rectum were seldom treated by the members of our profession, disease in the sigmoid flexure was an unknown thing in the past and received no treatment at all. When the writer issued his work on Diseases of the Rectum and Anus, he appended to the title, "and Sigmoid Flexure." He had in the years that he had given special study to rectal diseases become convinced that the flexure was very commonly the seat of

*Read before the Louisville Surgical Society.

disease, and yet he could not find in all literature any suggestion of treatment. In the chapter devoted to disease in the sigmoid flexure, page 438, will be found these words: "The flexure may be affected with the following pathological conditions, viz.: (1) Congestion; (2) inflammation; (3) ulceration (simple); (4) specific ulceration; (5) malignant ulceration; (6) stricture, either malignant or non-malignant; (7) the receptacle of foreign bodies causing disease; (8) tuberculous ulceration."

You will pardon any personal allusion to myself when I claim priority in the treatment, methodical and scientific, of disease in the sigmoid flexure; you will permit me to contrast the method of Dr. Kelly with the one proposed by myself. I accord to him the distinction of being a most eminent gynecologist, but it is well known that he has but little experience in either a scientific or practical way in treating disease of the rectum. I will be pardoned, therefore, in saying that his method of exploring the sigmoid flexure is not only of no utility but is dangerous in the extreme. The objections that can be urged against the method are:

First, it is dangerous. The rectum is not a straight tube, but is curved, and has danger-signals, as the vagina, uterus, bladder, peritoneum, etc. Four inches of it is attached, six or eight inches being floating gut; the folds are extensive and often require force to push them out of the way. At the entrance to the flexure is an aggregation of muscular fibers called by some the third sphincter muscle; in many cases this might prove to be a severe and dangerous obstruction to the introduction of such an instrument as described. The meso-rectum dips down in front of the rectum to within three or three and one-half inches of the anus. The fold of peritoneum of the flexure is attached to the fossa and is long enough to allow the gut to hang over the brim of the pelvic cavity. At the lower end of the flexure the fold is quite short and holds the part up close to the sacro-iliac symphysis. It can be seen, then, that the sigmoid flexure hangs down in the pelvis like a bag when it is not distended. Even in health it would be difficult, not to say dangerous, to traverse the rectum and flexure with a large metallic tube, and when embraced by pathological change the danger is doubly increased. In verification of the statement it will be remembered that a surgeon of this city reported to the Society a few weeks ago a fatal termination of a case, where the Kelly instrument penetrated the pelvic cavity while being gently introduced into the flexure.

Second, its non-utility. By looking at the instrument it will be seen that only the space of one-half inch in diameter could be observed through the distal end at a time. Then taking into consideration the obscurity of reflection from a head mirror, it can be easily understood that the observation could not be an accurate one. From a pathological standpoint it can be truthfully stated that ulcers—benign—of the character said to be detected by such means rarely, if ever, exist. The gynecologist, the throat surgeon and the rectal observer can attest that ulcerations of this kind do not affect mucous membrane. It is true that abrasions and excoriations take place on mucous surfaces, which are only the peeling off of epithelium. This is a very different condition from ulceration, which is a destruction of tissue by a necrotic process. This being true, any effort to find a well-defined ulcer in the sigmoid flexure would be futile.

No one would deny that an ulceration arising from a special cachexia, such as a malignant, syphilitic, or tubercular cachexia, could exist in the colon, but there would be sufficient clinical evidence in the way of symptoms to indicate it; and surely no one would think of introducing the hard metal tube in such pathological conditions as these.

Third, it is advised to give an anesthetic for each observation. No one ever takes either chloroform or ether without some fear, and every honest surgeon knows that in giving either there is some risk. The little good accomplished is not sufficient to guarantee the procedure, and especially is it to be deprecated when the other dangers mentioned are to be apprehended.

In lieu of such examinations and applications the writer would suggest a much simpler plan. The instruments used are a soft rubber flexible Wales bougie and an ordinary bulb syringe. By their use every inflammation or so-called ulceration of the sigmoid flexure can be treated without danger or pain. The bougie can be easily passed into the flexure by any attendant or nurse, or can even be manipulated by a child. The question might be asked, How are we to know that any ulceration exists in the flexure without seeing it? I might ask in reply, How are we to know that valvular disease of the heart exists without seeing it? By clinical evidence both can be traced: the heart by the sense of hearing, the other by very plain symptoms—pain over seat of the flexure, frequent discharges of mucus, or muco-purulent matter, and the absence of disease in the rectum, the reflex indications which always accompany such a condition. Whatever may be the character of irritation, congestion, inflammation or so-called ulceration can, if benign, be cleared up by a very simple treatment. The agents which I commonly use are nitrate of silver, boric acid, pinus canadensis, fluid hydrastis in any dilution desired. Indeed, many times have I seen cases of this kind cleared up in a few days by copious irrigation with pure hot water or boric or carbolic acid solutions.

I submit, then, that if this can be done the necessity of using this instrument of Dr. Kelly's is reduced to a minimum, if indeed it should ever be used at all.

OCULAR INJURIES—A CLINICAL LECTURE.

BY DON M. CAMPBELL, M.D., F.R.C.S. (EDIN.), DETROIT, MICH.,
Clinical Professor of Ophthalmology and Otology and Lecturer on the Diseases of the Eye and Ear in the Detroit College of Medicine; Ophthalmologist and Otologist to Harper Hospital.

In our clinic to-day I wish to bring before you cases which will be of interest to you as students of general medicine, and present to you problems and their solutions which you will daily meet in your work when you become practitioners of the healing art, removed, perhaps, from a large city where the advice and help of a specialist is inaccessible. There is perhaps no class of cases which will tax your ingenuity more or fall upon your shoulders with greater weight than those which you will see to-day.

Injury in the eye, as elsewhere, varies from the simplest lesion requiring the simplest remedies to the most severe involving the whole orbit, and introducing the burning question of the retention or sacrifice of an eye, and its considera-

tion often reveals to us the parting of the roads—the one path leading to complete and absolute blindness, the other to the retention of at least one useful eye to a grateful patient.

The simplest injury an eye can receive is perhaps the retention of a small foreign body in the conjunctival sac, and requires merely the removal of the offending substance. There is, however, in this connection a point of practical interest to which I would like to especially call your attention in passing, viz.: In searching for a foreign body in the conjunctival sac do not be satisfied with everting the lids and examining the conjunctival surfaces thus exposed, but pursue your investigation into that part of the conjunctival sac known as the fornix conjunctivæ, or retrotarsal fold, because occasionally a foreign body may be lodged there and perhaps escape attention unless search be made in this locality.

The January, 1898, number of the *Ophthalmic Record* contains a report of a case bearing on this subject in which a patient carried a large piece of wood in the retrotarsal fold for nine months.

Superficial wounds and injuries involving the conjunctiva, cornea, or sclerotic, but not producing perforation of the globe or other intra-ocular injury, require treatment along the lines of antiseptic surgery as applied to wounds in general.

Burns, in addition to the management of the injury itself and its direct results, require especial attention in order to obviate adhesions between the lids and the eyeball.

Perforating wounds of the eyeball demand our most painstaking and careful attention in order to properly conduct the case to a successful termination.

In any case of perforating wound of the eyeball which may come before you for investigation, the thing of primary importance to determine is whether or not a foreign body is retained within the eyeball, because upon the early and exact settling of that question a very great deal depends as to the therapeutic management of the case.

The history of the injury, the form and size of the missile, together with a close and scrutinizing examination by means of good light, oblique illumination and the ophthalmoscope will frequently make us sure of our ground.

In doubtful cases, where the missile is of iron or steel, the employment of the magnet, either Haab's large magnet or any of the various smaller ones generally in use, will frequently determine the question. In this connection the *x*-ray might also be mentioned, as it has frequently been used successfully in deciding whether or not a foreign body is retained within the globe.

Upon the one hand, if no foreign body be retained within the eye it is important to determine the exact relation of the wound to the ciliary body and also the probable condition of the eye as to appearance and utility when cicatrization has taken place. If the wound be in the ciliary region and of such gravity as to leave no hope of retaining a sightly eye, or one in which a reasonable certainty of retaining useful vision can be entertained, surgical interference should be instituted. It is not, however, necessary to immediately remove these injured eyes; a week or ten days may safely be allowed to elapse, the wounded member and its fellow being kept under close observation and the first signs of sympathetic inflammation early detected.

If a foreign body has been retained within the eye its removal becomes imperatively necessary. No compromise should be permitted with that rule. The foreign body must be removed at once, otherwise sympathetic inflammation will surely follow sooner or later and the vision be destroyed in both eyes. If, however, the removal of the foreign body be found impossible, then surgical interference is demanded and justifiable.

The treatment of an injured eye apart from surgical interference consists, briefly, of: (1) Thorough antisepsis; (2) continuous application of cold in the early stages, followed by hot applications later on; (3) atropine, excepting where glaucoma intervenes as a complication. Should secondary glaucoma manifest itself, the atropine would have to be discontinued and pilocarpine or eserine employed in its stead, or operative interference may be demanded to meet the increased tension.

The surgery of an injured eye is a many-sided question and involves some of the most perplexing situations presented to ophthalmologists. The complication glaucoma may demand a corneal paracentesis, a sclerotomy, or an iridectomy.

The surgery of an eye containing a foreign body leads us into any procedure necessary for its removal—simple incision, sclerotomy, iridectomy, cataract extraction, and the various manipulations with the magnet. Some results are permanently brilliant; others are primarily brilliant and subsequently not so, because cicatrization will frequently ultimately destroy what at first seemed a very good result; yet others are a failure from the beginning.

After having done all possible from every standpoint to retain the eye and save all possible vision to the patient, you will find a class of cases in which the injury is so great as to preclude the saving of the eye, and which manifestly demands surgical interference in order to save the fellow eye from the ravages of sympathetic inflammation, or to secure to your patient the very best cosmetic result. In order to meet the indications in this class of cases many operations have been proposed, the groundwork of them all being unquestionably enucleation or removal of the eyeball entire; but in its practical application enucleation has been found in many cases to be followed by certain unpleasant conditions. The artificial eye is frequently fixed and staring; deep depressions occur between the brows and the artificial eye which render the cosmetic result not all that one would wish for; and furthermore, the wearing of a concave shell in a concave orbital cavity produces an irritation which is accompanied by a muco-purulent discharge necessitating frequent laundering of the eye and cavity.

To avoid these unpleasant effects many operations have been tried as substitutes for enucleation, viz., evisceration, optico-ciliary neurotomy, transplantation of the rabbit's eye; but not until the English ophthalmic surgeon, Mules, invented the operation which now universally bears his name was any real advance made. About twelve years ago Mules published the details of his operation, and since that time it has been steadily growing in favor until now many ophthalmologists do the operation in suitable cases, thus securing to their patients a very much better result than that obtained from the ordinary enucleation. This is true chiefly because the Mules operation gives a

large movable convex stump on which the concave shell of the artificial eye is permitted to rest, the sulcus below the orbital margin of the frontal bone is well filled out, the artificial eye is quite movable, and there is no muco-purulent discharge from the conjunctival sac. Some have raised the objection that sympathetic inflammation is liable to follow, but as yet no such result has made itself manifest.

The operation, which is not difficult to perform, is done in the following manner: After the induction of general anesthesia and the sterilization of the field of operation, the ophthalmostat is introduced, the conjunctiva dissected back as far as the equator of the ball, and the four recti muscles severed close to their scleral attachment; the cornea is then transfixed with a Beer's knife as in the flap operation for cataract, by which procedure the cornea is detached from the sclera in its upper half; then with forceps and scissors the entire cornea is carefully removed.

The contents of the eyeball are now entirely removed, care being taken to thoroughly evacuate all remains of the ciliary body and the head of the optic nerve. The scleral cavity is now thoroughly cleansed and disinfected, all bleeding points being controlled by tampons of bichloride gauze soaked in hot water. Having thoroughly cleansed the scleral cavity, the artificial vitreous composed of a glass ball of proper size is introduced and the sclera closed by a row of closely placed silk sutures running vertically. The conjunctiva is closed by a separate row of sutures placed horizontally. The conjunctival sutures are removed after five or six days and the scleral ones are allowed to absorb. The recovery is prompt and usually uneventful, but there may be considerable swelling from edematous infiltration of the orbital tissue.

In order to facilitate the technique of the operation a specially devised scoop for removing the intra-ocular contents and an introducer for handling the glass balls have been devised and are shown in the accompanying cut.

MULES' GLOBES.

INSTRUMENT FOR SCRAPING THE INTERIOR OF THE GLOBE.

INSTRUMENT FOR HANDLING MULES' GLASS GLOBES.

(Reproduced from *Annals of Ophthalmology*.)

The after-treatment consists of rest in bed, a firm compress bandage over both eyes, and in addition, over the operated eye a pad kept constantly saturated in the following liquid as recommended by Fox, of Philadelphia:

Tinct. belladonna	2 drachms.
Tinct. opii	2 drachms.
Tinct. arnica	2 drachms.
Aquæ plumbi	4 drachms.
Aquæ camph	1 ounce.
Aquæ distill	q. s. ad 4 ounces.

The reaction for a few days is sometimes considerable, but the recovery is prompt.

I have to present to you for examination and serious consideration three interesting cases of ocular injury, each one of which will illustrate several of the points to which I have just referred:

Case 1.—J. H——, aged thirty-four, is, as you see, a strong and robust individual, never having been sick, and presenting an unexceptional family history. Last July, while working at his trade of lumberman in the woods of northern Michigan, a chip of steel flew off the wedge he was using, perforated the cornea, and was retained within the eyeball. He received for some months expectant treatment only, so that when he came to the Detroit Sanitarium five months after the injury Dr. C. G. Anderson was able to detect the foreign body still within the globe. Upon careful examination the foreign body could be seen embedded in the cataractous lens and the adherent iris. Here, then, was a case which imperatively demanded operative measures for the removal of the foreign body. An operation was performed by which, as you can easily see, an iridectomy was done, the cataractous lens extracted, and the foreign body removed, it proving to be a wedge-shaped piece of steel two millimeters long by one millimeter wide.

An examination of the eye in its present condition shows it to be perfectly quiet, all irritation having subsided, with a clear black pupil, good vision, and a faint linear scar in the cornea showing where the foreign body passed through.

Case 2.—John F——, aged eight years, was struck in the right eye four years ago by a large piece of iron, producing an extensive wound of the cornea, the healing of which resulted in a leucoma adherens. The eye is absolutely blind, very painful and tender; the tension is markedly increased; secondary glaucoma. The left eye of late has been quite distinctly irritated.

This is a typical case for a Mules operation, which I will now proceed to perform, and you will be able to follow each step of the operation as I described it to you a few moments ago.

Case 3.—J. M——, aged thirty-five, a metal worker by trade; personal and family history negative. The right eye was injured five days ago by a piece of wire cutting deeply into the cornea, and as you see the wound extends well into the sclerotic. There is a traumatic cataract, the iris is detached from its ciliary attachment for one-third of its circumference, and iritis has supervened.

This eye is mortally wounded and will have to be dealt with surgically, and by far the best thing to do would be a Mules operation. In the meantime it will be treated by continual applications of cold, antisepsis, and atropine, a close watch being always kept for sympathetic inflammation, as it is wounded in the most likely locality to produce disturbances in the fellow eye.

A CASE OF JACKSONIAN EPILEPSY.*

BY E. D. RICE, M.D., FLINT, MICH.

Epilepsy has been studied since remote antiquity. The first observers, struck by the suddenness with which its victims would be overwhelmed while in perfect health, gave it the name which it still retains. It was a common practise among the Romans to suspend their assemblies when a man was attacked with epilepsy during their progress. The disease is also generally known as falling sickness.

Observations of associated physiological and pathological states, such as the puerperium and renal affections, have led to a division of the field of epilepsy. The eclampsia of pregnancy, that of renal disease, and that of infantile convulsion have thus come to be considered separately. This separation of the different forms of convulsions is made necessary by a study of their etiological factors; they are all epilepsies, but are acute epilepsies which supervene upon the influence of different causes, such as pregnancy, childbirth, scarlatina, nephritis, etc.

As a matter of fact, we must look upon epilepsy as a group of symptoms which may manifest themselves in greater or less number in the course of different pathological conditions—sometimes under one form, sometimes under another. To say that there is only one true essential epilepsy which occurs without appreciable cause seems to me no more admissible than to say there is only one true form of renal disease which has for its cause an arteriofibrosis with contracted kidney, a neurosis, or other cause. These terms, epilepsy and renal disease, apply to complex symptoms. The most varied causes may produce the same clinical phenomena.

Epilepsy may be general or partial—that is to say, it may manifest itself at once in the entire body, or it may be restricted to a single part, to one limb or to an isolated group of muscles.

Partial epilepsy designates that symptomatic form in which the convulsions are limited to one-half of the body or to a single limb, to the face or single group of muscles. It has been described under the name of local convulsions. It has been more clearly studied in recent years, and found of interest from that diagnostic point of view which attaches to the location of the cerebral lesions.

From an etiological point of view epilepsy forms a portion of the symptomatic picture of acute or chronic forms of meningitis. Syphilis is one of the most prominent etiological factors in the formation of neoplasms which give rise to meningitis. Epilepsy is observed after fractures of the cranium with depression and irritation of the cortex, and invariably these cases constitute an urgent call for surgical interference. Many times it does not manifest itself until long after the traumatism, and can be located at the seat of the injury, especially if there be a cicatrix formed.

The epileptic seizure may be found to affect persons who have had hemiplegia, or partial paralysis due to some cerebral lesion of central origin.

* Read before the Northeastern Medical Society.

Partial epilepsy may be produced by uremia, which may produce local edemas; or this may form the exciting cause in patients with lesions of the cord or brain.

Reflex irritation is one of the frequent causes of epilepsy, being produced by a peripheral irritation of the nerves of the extremities, trunk, or viscera. It is certain that of all the irritations of the viscera, those pertaining to the pleura are the most frequent causes of an epileptic attack, particularly in patients subject to the disease.

It is an almost established fact that heredity is the most frequent cause of this disease, since a large percentage of the cases are found among persons who have inherited a nervous diathesis. It can be found in tracing the family history of almost any epileptic that one or more of his relations, whether it be his parents or as far back as his great-grandparents, have suffered from weakened or diseased nervous systems. Yet we must not wait to prove that some blood relation of an epileptic has suffered from the disease before establishing the fact of a congenital predisposition. The question is merely whether any of their ancestors have suffered from genuine epilepsy, insanity, hysteria, or general nervousness. Children of parents who are related to each other, and children begotten while the father was intoxicated, are predisposed to epilepsy. Whether the latter has any bearing upon the immediate cause of the disease is doubtful.

Certain factors may determine the beginning of an epilepsy, such as overexertion of mind or body, repeated emotional disturbances, or certain acute diseases, as scarlet fever, measles, gastritis, and enteritis; any of these may produce the disease by irritation of certain nerve plexuses, some of which may be distant from the organs involved. Epilepsy can be produced by injuries to the medulla, spinal cord, and peripheral nerves.

To prove the effect of heredity upon the young of epileptics, an experiment of Brown-Sequard's is recorded by which he produced traumatic epilepsy upon rabbits, and afterwards was able to demonstrate the true epileptic seizure in the progeny of these animals. His theory was that the causative lesion was due to the minute hemorrhages produced in the cervical division of the cord and in the medulla.

It is not necessary to describe all the symptoms of this disease, as you are familiar with the clinical picture of an epileptic in the different stages of the disease; any of the following different auras may precede an attack:

The motor aura manifests itself in the form of twitchings, tremors, or muscular palpitations, appearing first at the periphery of a limb; it may be noticed first in the hand, extending to the forearm and arm. Then the attack follows; it may be observed as a simple twitching of the eyelids or perhaps a numbness of these; the patient may first walk or run, others execute a gyratory movement, after which they fall and lose consciousness.

The sensory aura consists of a sensation of heat or cold which may extend from any point in the extremities or trunk; sometimes it is only a numbness or a feeling of pain. The most familiar sensory aura is the sensation of a ball or lump rising into the throat; it is difficult to differentiate from globus hystericus. I have under my care at present a young lady patient

who invariably has this aura, then loses consciousness. The sensorial auras may involve one or all of the organs of special sense, sight, hearing and smell being the functions most frequently affected. The viscera, too, are sometimes the seat of various sensations which precede the attack—sometimes by palpitation of the heart or by a pericardial pain, or only a painful oppression, laryngeal spasm, or constriction of the throat. The aura may spring from the abdomen, and be characterized by a sense of weight or dragging at the stomach. Regurgitation, nausea or vomiting may be frequent symptoms of the onset of an attack.

An illustrative case of the Jacksonian type is presented here:

Roy M——, aged eleven; an almost perfect picture of physical development; has never had any severe sickness, and has had no cause for consulting a physician since birth, except for what the mother calls "worm spells," which she says have presented symptoms since Roy was two years old, at intervals of about six weeks or two months. At these times he would be taken suddenly ill, generally early in the morning, with vomiting, fever, rapid pulse, and a pale, livid appearance of the features. This would be followed in the course of twenty-four hours with a condition of depression and lack of ambition, this latter symptom being the more noticeable from the fact that the boy was always very lively and anxious to attend to his home and school duties when in good health. The "worm spells," so-called, never caused the parents more than usual anxiety until October 6, 1897, when Roy was taken with what seemed like a true seizure while in the water-closet at about the usual time in the morning. The father heard him make a peculiar noise, and on going to the closet found him unconscious on the floor, with the right leg drawn up or flexed upon the thigh. This spell lasted but a short time, when he regained consciousness and was soon himself again, with the exception of a very tired feeling and a desire to sleep, which lasted most of the day. The next morning the same thing happened again. Each time I was called, but upon my arrival would find the lad over the attack. One peculiar thing about this case is that these spells came on at exactly the same time in the morning and generally while he was in the water-closet at stool. After I had been summoned two or three times and heard the same story each time, I became suspicious of the condition, and began to think the former "worm spells" meant more than they had been given credit for.

I remember examining the prepuce, but not thinking it unnecessarily long gave it no more attention, until one morning in my absence they called in another physician, who advised circumcision and said the boy would be all right and would have no more fits. At my next visit the father and mother both took me to task for not recognizing the condition of the prepuce. I assured them that that was not the cause; but they were so anxious to have the boy circumcised that I gave in much against my own wishes and did the operation. Everything went well for about three days, when the storm broke out with more vengeance than ever. The seizures were more frequent and more severe, always beginning with the motor aura of a twitching of the big toe of the right foot, followed with a numbness of the whole limb, with contraction of the muscles, flexing the limb as before described. Just before

becoming unconscious he would utter a cry, the head being at this time drawn back and to the right, on the shoulder. He became deeply cyanosed during the attack, which lasted about one or two minutes.

This patient's parents have been known to me for five years and have never at any time shown or experienced any neurotic symptoms of any kind. I have learned within the last few days that the boy's great-grandfather had falling fits and died in one of them. This is the only nervous element I can determine in the family on either side.

Seeing that my efforts to stop the spells were of no avail, I advised consultation, which was granted, and had Dr. Burr see the case with me. Dr. Burr considered it a grave condition of affairs and said he presented the symptoms of a cerebral lesion, affecting the center for the right leg.

Dr. Burr thought it wise to consult a brain surgeon with a view of locating the trouble, whatever the cause might be. The boy was accordingly taken to Detroit, where Drs. H. O. Walker and Inglis were consulted, they keeping him under observation for about ten days, not being able to satisfy themselves that operative interference was advisable. Dr. Inglis kept watch over him, and found the boy obstinately constipated and a very hearty eater, eating almost anything and everything. Dr. Inglis restricted his diet and gave him cathartics, which after the lapse of twenty-four to thirty-six hours brought away an almost complete cast of a portion of the mucous lining of the gut. After he had returned home I found on two different occasions large pieces of the supposed cast in the stool, which was generally of the most offensive character.

Since the patient's return home (which is about six weeks) I have kept him on a plain diet and given him phenacetine, three grains, four times a day, with tincture nux vomica and pepsin before meals, and pancreatin, from five to seven grains, one hour after meals. Under this treatment the seizures have lessened; he has had but two in the last six weeks, they being more of a general convulsive attack, and coming on when he became constipated. His mother has expressed herself as being discouraged with trying to regulate the bowels, as they would go from seven to ten days without operating if not forced to by injections after all the anticonstipation and saline remedies had failed. It seems to be an utter impossibility so far to correct this function.

Now whether all this disturbance can be attributed to the boy's digestion or to autointoxication or to a lesion in the cortex has yet to be proved. Have these spells the mother calls "worm fits" been of an epileptic nature, or due to a severe indigestion? I do not think it can be due to intestinal parasites, as he has had vermifuges freely and frequently to see if such might exist, but there have been no evidences of it. It may be barely possible that the epileptic seizures are of stomachic origin — in the absence of any actual destructive lesion in the cortex, cerebral tumor, local paralysis, or history of any direct traumatism to the skull.

There is a history that he had a log rolled over his body four years ago which rendered him unconscious, but not producing fracture of any bones. At this time he was profoundly cyanosed; yet it seems clear there was no clot of effused blood at that time, for within thirty-six hours he was up and around as usual.

While the prognosis of epilepsy is unfavorable, as a rule the partial form is less serious than general epilepsy. I do not mean to infer that epilepsy assuming the partial type is any more favorable, when caused by cerebral tumors associated with symptoms of compression or syphilis, than the general form, due to heredity or traumatism, in which the prognosis is particularly unfavorable.

Once the epileptic habit is formed, it is almost impossible to direct the patient's attention to any other subject for a sufficient length of time to cause him to forget the malady with which he is afflicted. A great many of these patients seem on the alert, and take advantage of the first opportunity when the symptom presents itself to have a seizure without exercising the least power of resistance. It is true that there is no power or influence that could be brought to bear to prevent the majority of epileptics from having these spells; yet some patients having the mild form will boast of the fact that they do not try to prevent them, and say that the quicker they are over the better, especially if they are periodical and should come on a certain day.

This is why I say that in some cases when the epileptic habit is once formed you may exert your utmost to remove the cause and might be successful in curing for a time a great many patients, would they but try to resist or forget about their spells. General epilepsy is more serious in proportion to the length of time it has existed and to the intensity of the attacks. Sometimes we find patients in whom there is well marked peripheral disturbance, such as affections of the ear, eye, prepuce, or visceral disturbances, all of which may be amenable to treatment, and in whom the prognosis may be better.

Since the introduction of the bromides into therapeutics and as a remedy for epilepsy the prognosis has been somewhat more favorable.

In regard to the treatment of epilepsy, I will not mention any particular drugs. I will only mention one which has proven successful in my hands in deferring the spells longer than anything I have ever used, and in cases that have been saturated with bromide. This is the hydrocyanate of iron, which I give in the idiopathic forms of the disease and where no underlying cause can be determined. I give hydrocyanate of iron in tablet form, one-half to one grain before meals, three times a day, with a digestant of elixir malto-pepsin after meals, when the stomach is irritable.

The American Medical Association.

The preliminary announcement of the Committee of Arrangements is made, and an excellent scientific programme for the next meeting in Denver is assured. Elaborate preparations for entertainment are being planned, and visitors are to have an opportunity of seeing some of the best scenery in the Rockies. It is expected that the hotel accommodation will be ample. A list of fourteen hostelries is included in the announcement.

IN MEDICAL CONCLAVE.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

At the regular weekly meeting Monday evening, March 14, 1898, the paper of the evening, entitled "Professional Secrecy," was read by Dr. J. V. Becelaere. He said that according to Webster, "Secrecy," when used of two or more individuals, implies: (1) Concealment from all persons except those concerned; (2) forbearance of disclosure or discovery.

The application "Professional" as applied to "Secrecy" refers to an obligation incumbent upon representatives of the learned professions—the law, the church, and the healing art—of keeping the secrets respectively of their clients, their penitents, or their patients.

Professional secrecy is a self-imposed obligation. Society rightfully demands that any one shall find in the physician a dumb repository of the most jealously guarded secrets. That our medical ancestors were fully cognizant of this confidential trust appears plainly from the wording of that noble document, the Hippocratic vow. Although universally respected by the medical profession, this obligation to secrecy was not recognized at common law, and Ewell in "Elements of the Law," p. 325, § 2, tells us that "communications to a medical man, even in the strictest professional confidence, have (at common law) been held not protected from disclosure;" and Professor Greenleaf in Section 248 of his standard treatise on "Evidence" tells us: "Neither is the protection extended to medical persons in regard to information which they have acquired confidentially by attending in their professional character."

State legislatures in enacting laws enforcing professional secrecy were not bent on creating a privilege for the profession, but simply lent legal form to the physician's self-imposed obligation.

The following comprises a list of enactments quoted in the paper of the evening as bearing upon the question of professional secrecy: Campau *vs.* North., 39 Mich., 606; Scripps *vs.* Foster, 41 Mich., 748; Storrs *vs.* Scongale, 48 Mich., pp. 387 and 395; The People of Mich., in § 7516 of Howell's Statutes, Sec. 86; Briggs *vs.* Briggs, 20 Mich., 41; Revised Statutes of N. Y., 2 vol., p. 406, § 73; Revised Statutes of Missouri, Sec. 40, 19; Supreme Court, same State, Gartside *vs.* Conn. Mut. L. Ins. Co., 76 Mo., 446.

Statutes to the same effect have been enacted in Wisconsin, Arkansas, California, Ohio, and other States.

Moreover, the communications passing from patient to physician are privileged, as for instance when the attending physician calls in another practitioner for consultation. The privilege is not terminated by death of the patient (Westover *vs.* Ætna L. Ins. Co., 99 N. Y., 59).

The obligation to professional secrecy as inscribed in our consciences and outlined in the preceding pages is impliedly contracted by every one engaging in the practise of medicine, and is due the patient in every case irrespective

of social conditions. It is understood also that the privilege covers not only those facts which have been directly entrusted to the physician's keeping by his patients, but any and all facts which he may have become acquainted with in his professional capacity.

Future attention will be given to the consideration of those cases in which a physician must needs put aside the obligation of professional secrecy to obey the requirement of public welfare, to prevent the commission of crime, or the communication of contagious disease to innocent persons.

At the meeting held Monday evening, March 21, Mr. Clarence A. Lightner, Professor Medical Jurisprudence, Detroit College of Medicine, read the paper of the evening, entitled "Some Medico-legal Questions Arising in Personal Injury Cases." He said the importance to the medical profession of personal injury litigation is proven by the statement that one-half of the actions at law tried in the New York State courts are of this character, very few of which are tried without the aid of medical testimony.

Legal justification is not given for every injury resulting from another's negligence. It must be shown that negligence is the proximate cause of the injury. The maxim of the law is, "*Causa proxima, sed non remota, spectatur*" ("The proximate, but not the remote, cause is looked at"). The foregoing principle is well understood, its legal application uncertain. The Supreme Court of the United States explains the scope and meaning of our maxim as follows: "What is the proximate cause of an injury is not ordinarily a question of science or of legal knowledge. It is to be determined as a fact, in view of the circumstances attending it. The primary cause may be the proximate cause of a disaster, though it may operate through successive instruments, as an article at the end of a chain may be moved by a force applied to the other end, that force being the proximate cause of the movement. The question always is, was there an unbroken connection between the wrongful act and the injury—a continuous operation? Did the facts constitute a continuous succession of events, so linked together as to make a natural whole, or was there some new and independent cause intervening between the wrong and the injury?"

The method of procedure in action for damages in event of death is specified by statutes enacted by the majority of States. The action is brought by the next of kin of the deceased person or by his administrator. Of course, the action fails unless the wrongful act of the defendant approximately caused death.

The contention that death resulted from unskilful treatment has been uniformly rejected. The law says that if one who is injured by the negligence of another seeks in good faith medical aid, the one causing the original injury is liable for all the damages which may result. Reasonable precaution is all that is demanded. In negligence cases the law provides only for compensatory damages to the injured person.

Damages in full have been awarded in several States, notwithstanding the fact that it was shown that the plaintiff suffered from a previous physical deformity. However, it is well established that if a person has a disease which is aggravated by the negligent act of the defendant, he can recover

damages only for the aggravation—*i. e.*, for the difference between his condition before and after the injury.

The advancement in medical science during recent years has lessened the possibility of successfully feigning physical disease. On the other hand, in cases of mental distress or disease, when the symptoms are necessarily largely subjective, the courts may be easily imposed upon by dishonest plaintiffs. The intangible character of mental and nervous diseases, and the difficulty of verifying their existence, are doubtless the reasons why courts have in many cases denied or limited the right to damages for such suffering.

We may consider three classes of cases involving mental suffering:

1. Fright unconnected with any substantial injury to the person, either physical or mental. In these the law usually allows no recovery.

2. Direct physical injury to the person, resulting in, or accompanied by, mental pain or disease. In these the law allows recovery for both physical and mental suffering, and gives compensation for mental pain suffered up to the time of trial, but adds as an element of damage all future suffering which the plaintiff is likely to endure.

3. Cases where there is no direct or physical injury, but as a result of fright, disease, either mental or physical, ensues. Upon the right to recover in this class of cases the courts are divided.

Cases illustrative of these different classes were given by the essayist.

In 1881 the Texas Supreme Court sustained the right of the addressee of a telegram to recover damages for the mental suffering he endured because, by reason of the delay in the delivery of a message announcing his mother's death, he was prevented from attending her funeral. This decision has been styled the "Texas rule."

Judge Philip T. Van Zile, Dr. F. W. Mann, Dr. Inglis and others took part in an animated discussion which followed the reading of the paper.

WAYNE COUNTY MEDICAL SOCIETY.

At its regular meeting on Thursday evening, March 17, the Society entertained its members by a session devoted exclusively to the discussion of diseases of the eye and ear. Dr. E. V. Riker read a paper on "Non-penetrating Wounds of the Eye," going fully into the treatment of those most serious injuries of the eyeball which result in rupture of the globe. Dr. R. W. Gilman presented a paper on the subject of "Penetrating Wounds of the Eye and Foreign Bodies." He reported the history of a case of unusual interest and exhibited the subject of the injury. The right eye of this patient undoubtedly contains a chip of steel embedded in the fundus and extending into the vitreous, yet the patient has practically normal vision now more than five years after the accident. Dr. Don M. Campbell read a paper on "Mules' Operation," giving the technique of the operation and the reasons for its employment in preference to enucleation. Dr. J. H. Sanderson discussed the subject of "Tinnitus Aurium," and reported a remarkable case of tinnitus caused by an aneurism of one of the intracranial arteries, in which the pulsation of the aneurism ceased without treatment, but the tinnitus continued.

DETROIT ACADEMY OF MEDICINE.

At a largely attended meeting of the Academy, held at the residence of Dr. Robbins, Dr. E. A. Christian, Medical Superintendent of the Eastern Asylum for the Insane, read a paper entitled "Periodical Insanity: A Résumé of Some of the More Important Facts." As the title suggests, there was a careful exposition of this form of degeneracy, which is characterized by alternating periods of elation and depression occurring at irregular intervals during the patient's lifetime. The degree of insanity is represented by the amount these periods vary from the normal mental states. Periodical insanity includes the following forms, based solely upon their periodicity: (1) Intermittent mania; (2) remittent mania, melancholia; (3) intermittent; (4) remittent; (5) circular insanity; (6) intermittent circular insanity. The patients have a bad family history, physical signs of degeneracy, and the disorder begins usually with a physiological period. In women there is a casual relation between the insane periods and menstruation. Rather more women are affected than men.

Diagnosis can only be made from a history of recurrence. There is usually a similarity of manifestations in different attacks. Recovery is rare because the trouble is mostly due to constitutional causes. Discipline and routine will often accomplish much. Yet death is rather rare from it, though approaching senility often gives relief from the periods. It was suggested that the general practitioner often meets these cases and makes a wrong diagnosis of neurasthenia until the disease has become settled on the patient permanently.

Charcot was theatrical in his clinic; he was still more so at home. Patients coming to consult him did not pass at once from his waiting-room into the office; entrance to that sanctuary was not made with ease; a previous initiation must be gone through. This took place in a small, dark room, beautifully furnished, filled with elegant trifles and but feebly lighted. There he waited a quarter of an hour or twenty minutes, time enough to think about himself in the dark. All at once a ray of light penetrated it, a large door began to open, and erect upon the threshold, bathed in a dazzling illumination, the God Charcot awaited him.

The Queen of Portugal is a frequent subject of newspaper paragraphs, some alleging that she is a trained nurse; others that she has discouraged the use of corsets by taking the Roentgen-ray views of the figures of her ladies in waiting; and others again that she is a graduate in medicine. Concerning the last statement, a French medical journal wrote to the lady requesting details of her professional career, and received a reply from the chamberlain to the effect that Her Majesty had never studied medicine, but took a purely humanitarian interest in the progress of that science.

For some time past an epidemic of typhoid fever has been raging in Budapest, the capital of Hungary, due it is generally affirmed to the use of impure water. To test the accuracy of this origin the Minister of the Interior has instructed that a searching investigation of the whole matter be made.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE TREATMENT OF MAMMARY CANCER.

The prolonged discussion in one of the leading medical societies of England upon mammary cancer inevitably led to the conclusion that neither from the medical or surgical standpoint were we within a reasonable distance of acquiring a satisfactory method of dealing with this fell disease. A discussion, however, which defines the extent and limitations of knowledge is not entirely unavailing. The principal point raised by the discussion was whether the operative treatment of mammary cancer was really a treatment at all. If the statistics of the last ten years have any value, it seems doubtful if long immunity is in many cases due to operation. Any such term as the cure of cancer must generally be reprobated.

After surgical intervention, three years' freedom from recurrence has been accepted as a hopeful prognostic of immunity. Nothing, however, is surer than that such is not in any sense a guarantee of it. At best, the ordinary removal of the mamma leads to recoveries ranging from ten to eighteen per cent. Halstead's operation, which involves the removal of the glands of the axilla and the pectoral muscle, is averred to favor a recovery of forty per cent. This operation is, however, a formidable one, and it is scarcely proved that the ratio of improvement it secures offsets the increased mortality. It is also alleged with some show of reason that the greater operation favors a greater amount of visceral metastasis.

A rational therapeusis of cancer will undoubtedly never be achieved until clearer and more definite notions prevail as to its essential nature. There are some grounds for believing cancer to be at one time a local disease, and as such local measures might be expected to modify its course. Syphilis might as justly be regarded a local disease. Local measures, however, are incapable of counteracting its constitutional implantation. To remove a cancer may be as futile a proceeding as the removal of a chancre. If cancer be a local disease at any time, nothing is known of the period at which it becomes constitutional, and nothing of the process whereby it infects distant parts.

So indifferent is the success achieved by surgical intervention that it can only be regarded a failure even though it prove the most promising resort open to the desperate. It is encouraging to find activity manifested in other

directions. From the therapeutical laboratory something is still to be expected. Promising indications have resulted from the formation of an experimental cirrhosis by means of dilute alcohol injections at the circumference of the tumor. Twenty-five cases of cure have already been reported. Formaldehyde also seems to exercise an extraordinary influence in these cases. The gleams of hope which occasionally irradiate this gloomiest domain of medicine should give encouragement to experimental activity in manifold directions.

EDITORIAL NOTES.

How the Chinese Predict Sex.

Now that the predetermination of sex is to be made possible, it may not be uninteresting to learn the methods whereby the Chinese predict the sex of their offspring. These have recently been enumerated by a French writer. He tells us that when the mother's abdomen is round and prominent so that it jolts her in her movements, the child will be a girl; whereas if the uterine enlargement be upward it will be a boy. Nature is not gallant, for even in the uterus the female occupies an inferior position.

A fresh color of the skin, with more or less pigmentation especially about the areola, and little change in the visage, betokens a daughter; the opposite conditions indicate a boy. Violent movements of the fetal extremities indicate a little lady.

If after the seventh month the right hand of the fetus can be found on the mother's right side, a boy will arrive. This is a subtle method of diagnosis, remarks our author, as those will know who have held the hand of a young lady in the dark and tried to guess whether or not it is the hand nearest the heart.

In a like manner the arithmetical methods of the Chinese are peculiar. If the second figure in the age of the mother and the number of the month of probable conception be both even or both odd, then the child will be male—if one is odd and the other even, then a little Chinawoman will appear. These conclusions have, as this observer says, an air of *Chinoiserie* about them, though they are not more grotesque than some of the explanations whereby the occidental mind has sought to elucidate this matter.

War and the Naval Surgeon.

Wars and rumors of wars will perhaps be not only the means of putting the nation's defenses on a better footing, but will also do something for the naval surgeon. It is generally conceded that the difficulty experienced in filling naval vacancies arises from the unsatisfactory position in which the naval officers find themselves in their relation to the officers of the line. Should the country need their services there will always be a large number of patriotic surgeons anxious for active service, but the present state of public affairs makes the occasion timely for adjusting the relations of the naval surgeon so that in future Uncle Sam may not be without well trained doctors in times of war.

ITEMS AND NOTES.

Typhoid fever is epidemic in York, Pa.

Over 11,000 births occurred in hospitals during last year.

In London there are nearly 7000 practitioners of medicine.

The colonization of epileptics is projected near Manchester, England.

The death-rate in New York during 1897 was the lowest on record, being 19.62 per thousand.

At Chicos Springs, New Mexico, a sanitarium for consumptives has been established.

Nearly 7000 medical students are attending the various universities throughout Italy.

M. Aubert, of France, says that atropine will mitigate the disagreeable symptoms of quinine.

The next meeting of the American Pediatric Society will be held in Cincinnati June 1, 2, and 3.

Herbert Spencer, who is suffering from heart trouble, has been removed from London to Brighton.

According to the *Chicago Evening Journal* the society people of that city are making a fad of osteopathy.

The London Spectacle Mission Society last year supplied 798 applicants with good glasses of British make.

Thirteen hospitals and charitable institutions in Chicago will receive, by the will of the late Geo. M. Pullman, $10,000 each.

Schleich's new methods of anesthesia have received little or no consideration in Berlin, where Schleich is a practising physician.

Dr. Archilles Rose's book, entitled "Christian Greece and Living Greek," has been translated into Greek and is to be published in Athens.

The Medical Department of the University of Texas, at Galveston, is in receipt of an appropriation of $46,000 from the regents of that institution.

It is reported that an epidemic of black blister has broken out in parts of Central India, the number of deaths from the disease averaging fifty a day.

A special despatch from Rio de Janeiro says that Dr. Sanarelli has decided to keep secret the discovery of his method of curing yellow fever with his serum.

The Prefecture of the Department of the Seine proposes the issue of a loan of 44,000,000 francs for the erection of a number of hospitals to contain upwards of 6000.

At present there are nearly 200 women attending lectures at the University of Berlin. The faculties chosen by them are philosophy, medicine, and jurisprudence.

Duke Charles Theodore, of Bavaria, is reported by cable to be operating for cataracts upon the Arabs in the neighborhood of Biscara, Algeria, where he is passing the winter.

The Skin and Cancer Hospital of New York celebrated its fiftieth anniversary by moving into a large and commodious building with sixty beds and ample clinical facilities.

The death of Sir Richard Quain, of London, an eminent physician and medical writer, the editor of Quain's Dictionary of Medicine, is announced in recent press despatches.

Rauchfuss affirms that no other city has so high a death-rate from diphtheria as St. Petersburg, and avows that the cause is to be attributed to the short supply of antidiphtheritic serum.

Cycling is injurious to health from three causes: contraction of the muscular system; chills following perspiration; and the stooping posture which renders respiratory movements defective.

According to a newspaper report, Professor Schenck has sold the German rights to his book on sex-determination for $6000, with the rights in England and the United States still to be purchased.

Drunkenness and vice among children in Europe is said to be increasing to an alarming extent. In Russia, children as young as four or five years have been known as having had delirium tremens.

The antivivisectionists have imported Arthur Wescott, the English lecturer on antivivisection, to persuade the public that the doctors are cruel and physiology a farce. He has lately been lecturing in Boston.

Mrs. Hart is collecting the correspondence of the late Mr. Ernest Hart, together with information bearing upon his public work, to assist her in writing a biography of her late distinguished husband.

The Turkish Government, which is not generally considered very intelligent or progressive, has agreed to the use of the metric system as an alternative to weights and measures current in that country.

A Baltimore judge has decided that faith-cure doctors are not legally entitled to remuneration for their services. He takes the ground that the faith-cure physician renders no apparent service to the sick.

Miss Hu King, English M.D., the first woman in China to be graduated from a medical college, has become first physician for the household of Li Hung Chang, the greatest of Chinese statesmen.

Excessive tea-drinking is assigned as the chief cause of the high rate of insanity in Donegal, and the theory would seem to be strengthened by the fact that there are three female lunatics to one male in the asylums.

The first subscriber to the *Medical Press and Circular* was an Irish provincial surgeon. His name was entered as a subscriber in 1846, and from that date until the present he has never failed to pay his annual subscription fee.

It is stated upon good authority that the Medical School of the College of Physicians and Surgeons in New York is to have a chair of Physiological Chemistry, to be occupied probably by Professor Chittenden, of Yale University.

The total number of lepers in the world is estimated at 2,000,000, of whom 20,000 are in Japan, 130,000 in India, 300,000 in South America, 500,000 in China, 20,000 in Europe, 40,000 in Turkey, and 5000 in Hawaii and the United States.

The Cuvier Prize of the Academy of Sciences, Paris, 1500 francs in value, has been awarded to Professor Marsh, of Yale University. This prize is awarded every three years for the most noteworthy work published during that period on geology or zoology.

Dr. A. Hustig, Professor of Experimental Pathology, in Naples, who last year visited India to investigate the plague, and who discovered a preventive serum, which upon practical trial appeared to be highly efficacious, has received from the Bombay municipal authorities a request to despatch a great quantity of serum.

Of the nearly 2500 physicians in Paris, five or six make from $40,000 to $50,000 a year, ten to fifteen make from $20,000 to $30,000, a hundred make from $3000 to $5000, eight hundred make from $1500 to $3000, while twelve hundred make less than $1500. Lawyers do not make as much as physicians in France.

An International Health Exposition on a large scale is to be held in New York shortly, to continue five weeks. The work is being done under the best auspices, and will no doubt be a credit to those who participate in it and to the city in which it is to be held. The announcement indicates that it will be an important and interesting occasion.

Charcot on Hypnotism.—Professor Charcot had certainly as good an opportunity to judge of the value of hypnotism as any physician of modern times, yet as the result of his extensive researches he arrived at the conclusion that not more than one person in a hundred thousand would be likely to be benefited by the application of hypnotism in case of disease.

Dr. Cook, who was with the Peary expedition, says the Eskimo girls do not begin menstruating until they are eighteen or twenty years of age. It has, however, been stated that they conceive and bear children at a much earlier age, a fact which has been adduced to show that there is no necessary connection between ovulation and menstruation.

A Cleveland druggist has been indicted for unlawfully practising medicine. An emergency call was sent to the drug store for a physician. The druggist responded, it is alleged, saying he was a doctor, and gave the patient medicine. If these are statements of facts, and it be shown that the druggist is not a legally qualified physician, it seems to be a strong case against him.

An employee in a large chemical works in Germany entered one of the departments with a lighted lantern, with the result that an explosion occurred, followed by the bursting of the acid tanks. He was never seen again, nor was there ever discovered even a shred of his clothing. The insurance companies refused to pay the policies on his life, claiming there was no proof of death.

A number of physicians (limited to fifty) of Paterson, N. J., are reported to be organizing among themselves a stock company for the purpose of conducting a drug store which should be free from the counter-prescribing, prescription-repeating, patent-medicine-vending and other abuses alleged against the present stores, and incidentally to get their share of the profits on their prescriptions.

Dr. Irving C. Rosse, the well known neurologist of Washington, has reached the same conclusion as have many surgeons, that "hydrophobia" is nothing but tetanus (or occasionally some acute inflammatory disease of cord or meninges). Dr. Rosse is so convinced that there is no such disease as hydrophobia that he has offered, over his own signature, a reward of $100, in the interest of science, to any one producing a well authenticated case of the same in man or dog.

The *British Medical Journal* notes that the Penzance town council has decided to omit measles from the list of compulsory notification diseases, and mentions the fact that while in the last year or so 105 districts had adopted compulsory notification in this disease, it has been subsequently revoked in nearly a third of the cases. The reason for this is that without provision for prompt hospital isolation little or no value attaches to the notification of disease, and on the other hand entails considerable expense.

The medical faculty of Vienna have just discovered that three of their colleagues have reached their fiftieth year since they have obtained their diplomas. They have resolved that these members shall be honored in accordance with ancient custom. They are Professor Stellwag, V. Carian, aurist, Professor Seagan, balneologist, and lastly a practitioner named Johann Natterer. This event will occupy the attention of the profession for a short time, in making and delivering speeches, always very numerous on these occasions.

NEW PUBLICATIONS.

TYPHOID FEVER.

This work, which is his latest, is characteristic of the great skill and indefatigable industry of its learned author. The subject appeals to every member of the medical profession, for all have more or less to do with the course, complications and sequels of typhoid fever—a malady altogether too common in this age. The work is strong on history, diagnosis, pathology, and treatment. Its suggestions are characterized by a bold conservatism, which embraces doing for the patient everything that is reasonably indicated in his greatly debilitated condition.

All of the well known complications, and some that are not well known, are considered and weighed with the calm discriminating judgment of a jurist. Treatment is described in free and exact language, and results are measured in impartial statistics reduced to their lowest terms.

In the chapter on special mixed infections, the relations of erysipelas, tetanus, anthrax and malignant edema are clearly pointed out. A chapter on conclusions gives the author's views in language which "drives his ideas home" in the reader's mind.

The surgical aspects of typhoid are more frequently—in the proportion of two per cent. to one—observed in males than females, says Dr. Keen. Naturally, from its frequency and fatality, attention is drawn to the author's views of intestinal perforation as a sequel or complication of typhoid. He points out that perforation is most frequent in the ilium; that it is often on the right side of the abdomen; and that there is rarely more than one perforation. Laparotomy offers a fair chance to about forty-eight per cent. of cases. The edges of the perforation do not need cutting or paring. The suture should be interrupted. Intestinal contents, which may be found in the abdomen, should be removed.

Paper, type, index and binding are all that can be reasonably desired. If every physician possessed this book, the mortality of typhoid fever should be greatly reduced. H. C. W.

The Surgical Complications and Sequels of Typhoid Fever. By William W. Keen, M.D., LL.D., etc., etc. Based upon Tables of 1700 cases compiled by the author and by Thompson S. Westcott, M.D., Instructor in Diseases of Children, University of Pennsylvania. With a chapter on the Ocular Complications of Typhoid Fever, by George E. De Schweinitz, A.M., M.D., Professor of Ophthalmology, Jefferson Medical College, etc., Philadelphia. And an appendix, The Toner Leaburn, No. V. Published by W. B. Saunders, 925 Walnut St., Philadelphia, Pa., 1898.

THE NERVOUS SYSTEM AND ITS DISEASES.

The author's reputation is in itself a guaranty of the scientific character of this latest addition to the work of American neurologists. The book has several new and distinctive features, each one of which is thoroughly commendable. Any scientific simplification of a needlessly complicated terminology is a step in advance, and the author is to be congratulated upon his adoption of the plan of simplifying neural terminology, so long since suggested by Wilder. Mononyms will be acceptable as substitutes for the redundant terminology so long in use.

Unusually exhaustive is the introductory sketch of the nervous system, including its architecture, physiology, chemistry, embryology, and histological development. The author makes frequent references to the work of Ramon y Cajal, Koelliker, and Andriezen, who have done so much to further our late knowledge of the finer anatomy of the nervous system, and whose work has shattered some of the old-time theories, and has led to the adoption of the neuron theory.

The symptomatology of diseases of the nervous system is too seldom intelligently and concisely set forth in text-books, which all too frequently leave extremely hazy the interpretation of those symptoms elicited by modern methods of investigation.

Electro-physics, diagnosis and prognosis here receive that merited attention without which such a text-book is now incomplete. Then follows a most excellent section on general therapeutics, in which massage, hydrotherapy, the rest treatment, nuclein therapy, and other therapeutic means receive a much fuller and more intelligent mention than is accorded by neurological text-books generally. Some of the formulæ will prove of value, though an aqueous solution of sodium bromide need hardly be dignified by mention among special formulæ.

Focal diseases of the brain are preceded by a full chapter on encephalic histology and physiology, in which cortical localization is admirably discussed, as are also the functions and lesions of the basal ganglia and cerebellum. Particularly commendable is the section on post-mortem examinations of the brain, especially with reference to the localization of lesions.

Students and general practitioners are too frequently innocent of any accurate knowledge of the encephalic circulation. Vascular diseases are therefore well prefaced by its careful discussion.

Nearly forty pages are given to the full discussion of aphasia and other defects of speech due to disease of the brain—a complex subject, too meagerly referred to in most of our text-books. The centers and tracts involved, verbal deafness, verbal and psychic blindness, the motor aphasias, as well as the connection of speech disturbances with mental disease, are all interestingly discussed.

Especial attention has been paid to lesions and disturbances of special sense. Affections of taste are discussed with unusual fulness, as are also affections of equilibration.

Chapters on diseases of the various other cranial nerves, on the pons and præ-oblongata and post-oblongata complete this most valuable addition to neurological literature.

While it is a matter of regret that only the diseases of the brain and cranial nerves are here considered, it is at the same time a distinct advantage that the author has not followed the example of similar text-books in attempting to compress within necessarily narrow limits the diseases of the spinal cord. Especially will this be to the advantage of the profession, if the author, as is earnestly to be hoped, early makes his work complete by supplying a companion volume upon the cord and its diseases.

This volume is a valuable addition to the library of practitioner or student. The paper and print are excellent, and the publishers present it in most attractive garb. C. W. H.

The Nervous System and its Diseases. A Practical Treatise on Neurology for the Use of Physicians and Students. By Charles K. Mills, M.D., Professor of Mental Diseases and of Medical Jurisprudence in the University of Pennsylvania; Clinical Professor of Neurology in the Woman's Medical College of Pennsylvania; Professor of Diseases of the Nervous System in the Philadelphia Polyclinic; Neurologist to the Philadelphia Hospital, etc. Diseases of the Brain and Cranial Nerves, with a General Introduction on the Study and Treatment of Nervous Diseases. With 459 Illustrations; pp. 1056. Philadelphia: J. B. Lippincott Company, 1898.

INTERNATIONAL CLINICS.

The new volume of International Clinics contains a large number of lectures dealing with subjects of absorbing interest. The most modern spirit pervades the whole volume, and the reader is kept in the vanguard of medicine. Several of the lectures are of conspicuous merit, among which might be mentioned that by Boas, on the Diagnosis of Gastric Disease by Chemical Investigation; that by Charles Lyman Greene, on the Differential Diagnosis of Typhoid Fever; and that by Edward T. Fisher, on Various Forms of Paralysis and Their Localization. The present volume is abundantly illustrated, and from every standpoint is an excellent production.

International Clinics. A Quarterly of Clinical Lectures by Professors and Lecturers in the Leading Medical Colleges of the World. Edited by Judson Daland, M.D., Philadelphia; J. Mitchell Bruce, M.D., F.R.C.P., London, England; and David W. Finlay, M.D., F.R.C.P., Aberdeen, Scotland. Volume IV; 7th Series, 1898. Philadelphia: J. B. Lippincott Co.

THE YEAR-BOOK OF TREATMENT.

The merits of this annual digest of medical progress are so well known that comment is superfluous. Neither the specialist nor the general practitioner can really afford to be without this work. The twenty-five chapters, each assigned to a recognized authority, give a comprehensive review of the whole field of medicine. Its systematic arrangement and good indexing make it a convenient and reliable reference handbook.

The Year-Book of Treatment for 1898. A Critical Review for Practitioners of Medicine and Surgery. Crown octavo; 488 pages. Cloth, $1.50. Philadelphia and New York: Lea Brothers & Co., 1898.

THE MEDICAL ANNUAL.

The Medical Annual for the present year exhibits a progressive spirit, especially in the excellence of its engravings and tinted plates. The whole field of medicine is carefully traversed, and a complete index makes its contents readily accessible to its readers. The present issue of this valuable work contains almost a complete atlas of the bacteria pathogenic in man in admirable tinted plates. Another new departure in the present volume is a report of the legal decisions which affect the medical profession or have reference to public health.

The Medical Annual and Practitioner's Index. A Work of Reference for Medical Practitioners. Sixteenth Year. Bristol: John Wright & Co.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Bottini's Galvano-Caustic Radical Treatment for Hypertrophy of the Prostate.

Dr. Willy Meyer, in an article in the *New York Medical Record* of March 5, says in regard to Bottini's operation that the surgeon who is called upon to-day to give his advice in regard to the best treatment for hypertrophy of the prostate gland still finds himself in a rather embarrassing position. It is true quite a multitude of operations, designed for the radical cure of this trouble, are at our disposal; yet to propose the proper one in a given case is doubtless a difficult task. As the matter presents itself to-day, it seems that in all cases in which catarrh of the bladder complicates the trouble, we should not propose an operation of any kind at once. Gratifying results are often obtained by a carefully carried out treatment by irrigations under strict aseptic precautions. That this treatment is greatly assisted by the internal administration of urotropin, eight grains three times a day, has been the writer's personal experience. Urotropin is a chemical combination of four molecules of ammonia and six molecules of formaldehyde. Of course, irrigation of the bladder will not generally suffice to influence the size of the prostate, and hence not reduce the residual urine, although it has frequently been the means of improving the objective feature.

The operation of which Meyer speaks has been virtually practised by only one gentleman for twenty-two years, namely, the inventor of the method, Enrico Bottini of Pavia, and that in spite of the fact that he has frequently drawn the attention of the profession to it.

When Bottini performed his first operation on October 26, 1875, he made use of the so-called "cauterizzatore prostatico," representing an instrument of the shape of a catheter of medium caliber with a short beak, the latter carrying on a porcelain disk a platinum plate about three-fourths of an inch long. With this plate, made red-hot by the electric current, he cauterized the prostate thoroughly at different spots, if necessary repeatedly. When the eschar had been pushed off, improvement often began to set in; at times it took thirty days before patients could notice the effect of the interference. Later, he discarded the cauterizator and made use only of the second instrument, the "incisore prostatico," which removes the mechanical obstruction to the outflow of the urine at the neck of the bladder by slowly burning a groove or grooves through the same, and not by superficial destruction.

The objections to the operation are hemorrhage, infection and dribbling of urine that may follow. The technique of the operation is simple. After the bladder has been carefully irrigated and emptied, the posterior urethra is locally anesthetized with cocaine or eucaine, one and a half drachms of one- or two-per-cent. solution being injected either into the posterior urethra directly

or into the anterior portion of the canal, and then pressed backwards by gentle massage upon the perineum. Five minutes later the mucous surface will be found sufficiently insensible to render the operation painless.

MEDICINE.

The Prognosis in Cardiac Disease.

The attention which has of recent years been paid to prognosis in heart disease, and the increase of our knowledge with regard to it, has led me to its choice as the subject for discussion this evening. Notwithstanding the progress which has been made, the prognosis in cardiac disease is still probably one of the most difficult questions in clinical medicine. The fact that some of the most serious and suddenly fatal forms of disease are at times preceded by so few symptoms will always make it difficult to foretell the result in this class of cases. In the first half of life valvular lesions are the result of endocarditis, and the prognosis during the attack depends largely upon the nature of the infective agent. If endocarditis occurs during an attack of rheumatism the immediate prognosis is favorable, but the liability to the occurrence renders the future more uncertain. Endocarditis, which results from scarlatina, is not likely to occur. The prognosis in endocarditis, due to other infective agents, depends largely upon the particular micro-organism present, as well as the resisting power of the constitution; it also depends largely upon the treatment adopted and upon the behavior of the patient. A few moments of overexertion during any stage may very much increase the gravity of the prognosis. Little reliance can be placed upon the volume of sound in aortic stenosis. The presence of dizziness and attacks of fainting are signs of cerebral anemia, and therefore of a more serious lesion.

The prognosis in mitral stenosis is not so favorable as in regurgitation, first, on account of the tendency of the opening to become smaller; second, in mitral regurgitation the force of the right ventricle acts in two ways: it resists the reflux into the ventricle, and fills the ventricle more rapidly in diastole. The prognosis of stenosis is not so favorable as when it occurs later in life. In aortic insufficiencies, three conditions may prevent a collapsing pulse in cases of grave prognosis: (1) Aortic stenosis preventing the return of blood to the heart; (2) the failure of the heart muscle, on account of which the blood is not propelled with sufficient force to produce a collapsing pulse; (3) the loss of elasticity may prevent our noticing the collapse. Irregularity of the pulse, both in frequency and in force, occurs in the latter stage of the disease. Enlargement of the liver, venous stasis, edema, albuminuria are, of course, unfavorable symptoms. If these conditions have been caused by overwork, or if rest is followed by a decided amelioration of symptoms, the prognosis is more favorable. The social condition of the patient may be an important factor. If he has plenty of means, and the wish to take proper care of himself, he will probably live much longer than one who has to struggle to support himself and family. Personal habits play an important part, especially the use of tobacco and alcohol. I am firmly convinced that the deleterious effect of

the use of tobacco is much underestimated, and that it is frequently the cause of serious changes in the heart. Alcohol has an injurious effect, especially in the production of arteriosclerosis.

It may be stated, by way of conclusion, that the patient of regular habits, who does not use tobacco; who is either a total abstainer or a very moderate user of alcohol, possessing an even temper; whose calling requires a moderate amount of regular exercise; who lives among healthy surroundings; who has freedom from worry, is one who, other things being equal, stands the best chance of long life. Sex has an important bearing. Mitral stenosis occurs more frequently in the female, and aortic insufficiencies in adults. Broadbent says: "When the valve disease comes on in childhood, girls break down at the period of puberty more often than boys." — Dr. J. H. Graham, in the *Canadian Practitioner.*

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,
Microscopist to Harper Hospital, Detroit.

Formaldehyde Vapor Disinfection.

Dr. G. W. Fairbanks, of Boston, reports in the *Centralblatt für Bakter.*, etc., Nos. 1, 2, and 3, 1898, an interesting series of experiments under Professor Grawitz, of Berlin, upon the action of formaldehyde vapor as a disinfectant.

Dr. Fairbanks' experiments were exhaustive, but of a very practical nature. An ordinary room was used for the purpose. Cloths were saturated with pure cultures of diphtheria, typhoid, anthrax and other bacteria and placed in different parts of the room, some between mattresses and some wrapped up in other cloths. Cultures were wrapped in cloths, and many other means taken to test the penetrating as well as the bactericidal power of the vapor. Schering's pastil and lamp were used, one pastil for every cubic meter of air space. The room was shut up for thirty hours, when a thorough bacteriological examination was made of the various cloths and articles. The bactericidal power of formalin gas was complete in every case where articles were exposed to the full play of the gas, and even when wrapped in several thicknesses of linen cloths all forms of bacteria were killed except the anthrax spores. Large pieces of diphtheria membrane and masses of pus were not rendered sterile. However, such can always be taken care of during sickness, and as we seldom meet with anthrax its resistance to the gas is not so important as the non-resistance of the common causes of infectious diseases. Especially important is the fact that the infected dust of a room will be completely disinfected.

Professor Grawitz adds a few words to Fairbanks' article, saying that he has used the formalin gas disinfection in a large number of rooms in which had been cases of diphtheria, scarlet fever, measles, and typhoid. He recommends the method highly when used in conjunction with other means of disinfection, as follows:

1. The bedclothes and patient's linen are, as formerly, disinfected with steam; also the mattresses if they have been soiled, as often occurs with children and typhoid patients.

2. All particles of pus and sputum about the bed are wiped up with damp sublimated cloths and burnt.

3. All furniture in the room is pulled out from the wall and curtains, etc., spread out so that the gas can have full play upon them.

4. The windows are shut tightly and the lamps lighted with 1.5 to 2 pastils for every cubic meter of room space.

5. After twenty-four hours the doors and windows are opened and the dust is swept out and burnt. After a thorough airing the room is ready for another occupant.

Wherever the gas can find its way there is a complete disinfection; it does not discolor the curtains, carpets, decorations, etc., of a room. The material is cheap and little time or labor is required. It is not poisonous if penetrating through cracks into the next room. There is no smell after airing the room, as with carbolic acid. In fact, formalin gas seems the best and surest agent we have for room disinfection.

The Early Diagnosis of Tubercular Chest Affections by Means of Radiography.

Before a recent meeting of the Paris Académie de Médecine Kelsch (*Münchener Medicinische Wochenschrift*) furnished fifty-one observations in cases of mild lung affections. Through the usual methods of physical diagnosis the true condition had not been brought to light; but by the aid of radiography the existence had been determined of certain low-grade contractions of the apices, swelling of bronchial glands, and pleuritic changes. These are the features of tuberculosis often overlooked in the beginning, and which may, under favorable conditions, remain latent through life or one day be the source from which a general infection may spring. At any rate, individuals in whom such conditions exist have diminished resistance, and are less adapted to cope with the strain active occupations—such as, for example, military service—throw upon the heart and lungs. It now seems conclusively proven that with the use of radiography not only phthisis in its various stages may be accurately studied, but that latent conditions may be brought to light in time to make suitable prophylactic measures of value to the afflicted individual.

A Micro organism which Behaves Morphologically and Tinctorially as the Tubercle Bacillus.

Dr. Alfred Moeller (*Deutsche Medizinal-Zeitung*, Feb. 17) has added a very interesting—it may be a very important—contribution to bacteriology. He finds in timothy grass, and in the feces of many animals, a germ which, so far as its staining reaction and its form are concerned, seems to be identical with the tubercle germ. He says that if some timothy is placed with sterilized water in rubber-capped test tubes and these placed in an incubator for eight to fourteen days, one will find on staining, at least in many of the tubes, this

germ. He has also found it in the dung of many cattle, horses, sheep, swine, and mules. (The cattle were all proved by tuberculin to be free from tuberculosis.) As a rule the germs are scarce in the dung. The germ grows on the same culture media on which the tubercle germ develops, but will not grow in either sterilized or non-sterilized milk. It grows at room temperature, as well as in the incubator. Whether this is the genuine tubercle germ, or merely a germ that happens to have the same physical properties, remains to be shown. Moeller promises in a future communication to describe its development in relation to Koch's tubercle bacillus, its pathogenesis, etc.

THERAPEUTICS.

Methylene Blue in Gonorrhea.

The *Philadelphia Polyclinic* of February 19, 1898, contains a paper by Orville Horwitz, giving the results in 105 cases of gonorrhea treated with methylene blue, in which the author has shown that this drug has a markedly germicidal effect upon the bacillus of this disease. From his experience he concludes:

1. That methylene blue is a germicide of great value in cases of acute urethritis, due to the presence of gonococci.
2. That it will not abort the disease, but will materially shorten its duration.
3. That it markedly lessens the tendency to complications.
4. That it is not employed in the treatment of acute urethritis, unless a bacteriologic examination demonstrates the existence of gonococci.
5. That the remedy should be employed as soon as possible after infection.
6. That the proper dose with which to begin treatment is one grain three times a day, to be increased to two grains if the remedy is well borne.
7. That the beneficial action of methylene blue is enhanced and the duration of the disease shortened by combining it with copaiba, sandalwood oil, and salol.
8. That injections of potassium permanganate by means of a hard syringe, or if possible by irrigation, administered in the early stages of the disease, and followed during the period of decline by an astringent injection, have a marked tendency to shorten the duration of the malady.
9. That methylene blue is of no service in cases of non-specific urethritis.

Drugs which Should Not Be Dispensed in Capsule Form.

Salicylate of sodium causes gastric disorders, with nausea and vomiting, and should therefore be administered diluted with plenty of water. Ulceration of the gastric mucosa has been observed after its use in capsule form. Antipyrin often irritates the digestive tract, and is best given in Vichy or soda water. The following drugs are hygroscopic and therefore cause the capsule to become softened: acid phosphates and glycero-phosphates, sodium bromide, crystallized calcium chlorate, strontium chloride, piperazin, lysidin, chloral,

the dry extracts of plants, and in general those preparations produced by evaporation in vacuum Some solid drugs when mixed tend to deliquesce—mixtures of antipyrin and sodium salicylate, for example. Certain substances, when exposed to the air, become altered or at least discolored by the contained oxygen. The chief representatives of this group are the salts of iodine, the alkalies, and the alkaline earths; also aristol. Free iodine combines with the starch of the capsule, producing a bluish-black discoloration.—*Medical Record.*

Itrol in the Treatment of Gonorrhea.

Werler (*Dermatol. Zeitschrift*, 1897) has employed this preparation with most gratifying results, and states that it has a pronounced effect upon the gonococci, does not give rise to irritation of any moment, or affect the mucous membrane of the urethra injuriously. He recommends the early injection of the solution in order that the cocci may be killed at once and thus the invasion of deeper structures prevented. Four injections should be made daily, the initial solution having a strength of 0.025:100, increasing to 0.05:200, if found desirable.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,
Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

Movable Kidney.

McNaughton (*Brooklyn Medical Journal*, February, 1898), reviewing the history of movable kidney, states that while the condition has long been recognized, it has as yet received too little consideration at the hands of the profession. The chief symptoms are those of digestive disturbances, pain near the lower border of the ribs, generally to the left of the median line, and nervous manifestations.

The diagnosis of movable kidney is easy in the majority of cases. The patient should be placed on the back with legs and thighs moderately flexed. The physician then lightly grasps the side just between the lower rib and iliac crest, with thumb in front and the fingers behind. The patient is directed to take a long breath, when the kidney, if loose and not too tightly held, will be felt passing between the fingers and thumb. The parts should then be more firmly grasped, and the kidney palpated with the other hand and made to slip back to its normal position.

Regarding treatment the author says that ordinary support of the kidney by means of a belt properly adjusted while the patient is on the back is all that is required in the majority of these cases. The amount of pressure necessary to hold a kidney in place is very slight. Means should also be taken to increase the amount of adipose around the kidney.

McNaughton deprecates the frequent resort to surgical interference in these cases, and finds that very often the operation of "anchoring" is not only

unjustifiable, but may leave the patient in a worse condition than previously existed.

In the discussion of this paper, Prof. Chas. Jewett was under the impression that movable kidney had been detected in nearly half of his office patients, but that in a good proportion of these the condition had given rise to no symptoms. He considered that operation had been resorted to much oftener than necessary, and had found that lacing the lower portion of the corsets moderately tight, leaving the upper part loose, and suspending the clothing from the shoulders, had frequently afforded sufficient relief without the inconvenience of extra apparatus

Adhesion of the Female Prepuce.

Bacon (*Am. Gyn. and Obst. Jour.*, March, 1898) concludes from his observations and experience that preputial adhesions in the female may produce two different effects: (*a*) an irritation leading to masturbation and various neuroses; and (*b*) prevention of development of the glans clitoridis resulting in an eroticism. The reflex nervous centers of the child being less under the control of the inhibitory impulses than in the adult, peripheral irritation gives rise to nervous manifestations in the former which in the latter would have no effect. As preputial adhesions in the female are capable of setting up as grave nervous symptoms as the like condition in the male, Bacon is of the opinion that every female child should be examined and the clitoris liberated at the same period that this or circumcision is undertaken in the male—that is, some time immediately following the separation of the navel.

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
Lecturer on Dermatology, Detroit College of Medicine.

A Case of Pseudo-lupus Vulgaris Caused by a Blastomyces.

In the *Journal of Experimental Medicine* for January, 1898, T. Caspar Gilchrist, M.R.C.S., and W. R. Stokes, M.D., Baltimore, in reporting at length the case referred to above, state that within the last three years a number of important communications have appeared concerning pathogenic yeasts; that before this period it was generally believed that among the yeast plants there existed none pathogenic for man or animals. They give the following summary:

"The case is one of a somewhat extensive cutaneous disease, which occurred in a man 33 years of age, who gave the following history: The disease first made its appearance eleven and a half years ago, at the back of the left ear, as a pimple which soon became pustular. The process extended forward very slowly and gradually encroached upon and covered almost the entire face, the central portion of which now presents an atrophic cicatricial condition. Another similar lesion occurred, one month after the primary invasion, on the back of the hand, which healed in about four years, after treatment with caustic. A third lesion appeared on the right side of the

scrotum (six months after), which increased in size for a year and then healed spontaneously. A fourth inoculation appeared on the anterior surface of the left thigh just above the internal condyle, and grew for a year, after which it gradually healed spontaneously. A fifth lesion appeared on the back of the neck and also healed spontaneously after growing for a year. The disease when first examined presented many of the features of a lupus vulgaris.

"There were no enlarged lymphatic glands and the patient's health had always been good. The family and personal history revealed no syphilitic or tuberculous taint.

"Sections from the cutaneous lesions showed the presence of what appeared to be budding blastomycetes. In many sections almost typical tubercles were found.

"The organisms in the tissue are chiefly spherical, unicellular bodies varying from ten to twenty millimeters in diameter, and consist of a doubly contoured membrane, which encloses a fine granular protoplasm with sometimes a vacuole. Many budding forms in various stages were found; no nucleus could be demonstrated, neither were any mycelium or hyphæ present in the tissues. The parasites were almost always found outside of cells, comparatively few being enclosed in giant cells.

"Pure cultures of the organism were obtained directly from the cutaneous lesions in two places from the pus squeezed out from the papillomatous variety of the lesion. The organism grew on all ordinary media, and especially well on potato and beerwort agar. The cultures showed both budding forms and a fairly profuse mycelium. Older cultures, carried through many generations, produced sometimes little or no mycelium. The organisms in the cultures were round, ovoid, doubly contoured, refractive bodies, varying in size from about ten to twenty millimeters in diameter. The mycelium was, on rare occasions, of two varieties, very fine and also coarse, with sessile buds and conidia.

"Dogs, a horse, a sheep and guinea-pigs were successfully inoculated, the most striking results being nodules, grossly simulating tumors, in the lungs. Microscopically these nodules were of a chronic inflammatory nature and contained numerous parasites identical in appearance with those in the patient. In the tissues of none of the animals successfully inoculated was any mycelium found. Since our organism did not ferment sugar and produced in cultures mycelium, it may either belong to the blastomycetes or to the oidia, but in conformity with prevailing nomenclature we regard it as a blastomyces.

"We shall term the disease which has been produced by this organism Blastomycetic Dermatitis. We give the name Blastomyces Dermatitidis to the parasite which we have isolated and described.

"In closing we are of the opinion that it would be advisable to examine more carefully all tuberculous lesions of the skin, and especially those of tuberculosis verrucosa cutis, for the presence of blastomycetes. This can be readily and rapidly done by soaking the unstained sections in ordinary liquor potassæ, when the organisms if present will stand out as doubly contoured refractive bodies."

THE MEDICAL AGE

VOL. XVI. DETROIT, APRIL 25, 1898. No. 8.

ORIGINAL CONTRIBUTIONS.

THE SURGERY OF THE GALL-BLADDER AND ITS DUCTS.*

BY H. O. WALKER, M.D.,
Professor of Surgery in the Detroit College of Medicine.

*A clinical lecture delivered at St. Mary's Hospital, Detroit, March 15, 1898.

I exhibit to you to-day a case that presents all the symptoms of cholelithiasis, the presence of biliary calculi in the gall-bladder. In July last I operated upon the patient for the relief of a large inguinal hernia by the Bassini method (Fig 1). During his stay in the hospital he had two or three attacks of severe pain referable to the stomach, with vomiting. There was also noticed more or less of a jaundiced appearance following these attacks. After leaving the hospital these attacks were more frequent, with a constant sensitiveness over the gall-bladder radiating to the stomach and the back on the right. The other symptoms were gastric distress and a greater or less jaundiced appearance. For the last two months he has lost considerably in flesh and the pain has become so excruciating at times that it has greatly interfered with his avocation.

FIG. 1.

Manipulation in the region of the gall-bladder elicits pain, but I fail to find any apparent enlarge-

ment of it. These attacks of pain and other symptoms point pretty clearly to freqeunt obstruction of both the cystic and common ducts. This diagrammatic sketch that I have drawn will give you a fair idea of the relationship of the gall-bladder and its ducts to the liver, duodenum, and the stomach (Fig. 2).

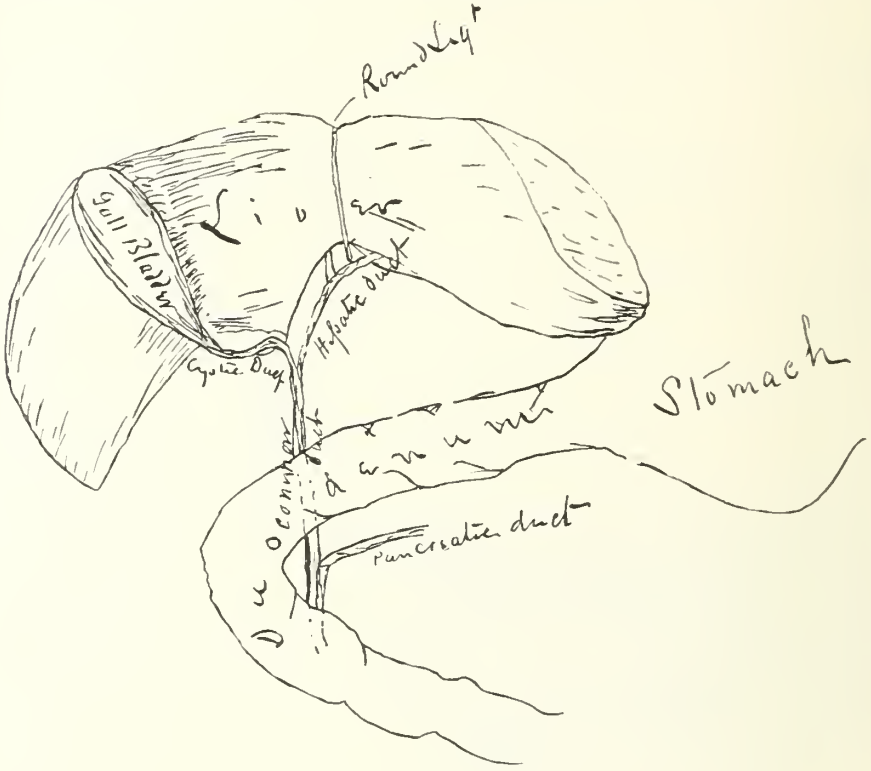


FIG. 2.

I feel that an operation for his relief is justifiable, rather than to leave him to a life of continued suffering and probable death from a possible acute empyema. Experience has taught us that a properly conducted operation is somewhat safer than that for appendicitis as we are accustomed to find it.

Operations upon the gall-bladder have been designated as follows:

Cholecystotomy, namely, the opening of the gall-bladder either for its drainage or the removal of calculi, is the simplest of any of the operations.

Cholecystectomy: Removal of the gall-bladder for its atrophied condition, with large encysted and adherent gall-stones or incipient malignancy—a very difficult condition to diagnose.

Choledochotomy is the term applied when a stone is to be removed from the common duct.

Cholelithotrity signifies crushing of stones in the cystic or common duct by either rubber-covered blades of a forceps, or by pressure of the finger.

Cholecystenterostomy: Anastomosis of the gall-bladder with suture or mechanical appliances such as the Murphy button.

I had this man sent to the hospital two days ago for preparation, and the method of procedure of approach to the gall-bladder will be similar to that customary in the different operations just spoken of. First, an incision extending from the tenth rib through the right outer border of the rectus muscle downwards, from three to five inches in length, as necessity requires. Ordinarily the lower border of the liver will be first observed, unless the gall-bladder is unusually distended. At the lower end the colon presents, covered with a fold of omentum. Pushing these downwards we will hold them out of the way with hot sterilized pads, which now gives us a view of the gall-bladder somewhat distended, and bound to adjacent structures by adhesions. These I have carefully liberated with my finger. Within the gall-bladder can be felt a great number of calculi, as well as some in the cystic and common ducts. Before proceeding farther I will encircle the fundus with a stout (catgut) purse-string suture. It serves first the purpose of keeping the gall-bladder up by traction. In order to prevent the escape of bile into the peritoneal cavity we pack around well with gauze. The incision into the gall-bladder is made within the purse-string suture, but instead of an escape of bile you observe that it is a glairy mucous fluid. The calculi are removed with a small lithotomy scoop. At the entrance of the cystic duct I press out several more calculi, but those in the common duct are immovable either up or down. This necessitates opening the common duct, which I find necessary at two points, indicating that the duct is constricted. From these openings I have removed three of the largest stones of the lot. The openings are now closed with two rows of catgut sutures, first approximating the mucous and muscular coats, and over this approximate the divided peritoneum. As there is no evidence of sepsis we will now invert with dressing forceps the incision in the fundus and pucker and tie the purse-string suture serving its second purpose, the approximation of the serous surfaces. You will have observed that there was no flow of bile until we had opened the common duct. We will now withdraw the pads and gauze packing and see that the wound is dry when we close the abdominal wound without drainage. If there had been sepsis it would have been necessary to have stitched the gall-bladder to the abdominal parietes, thereby leaving a fistula which would have taken long to close and might have become permanent, a condition that has not infrequently occurred. Counting the calculi we find that they are one hundred and eighty in number, from the size of a millet seed to a large-sized pea, and are mostly faceted. Their color is a dark gray, and when crushed they are somewhat laminated and are undoubtedly composed of cholesterine colored with bile pigment (Fig. 3).

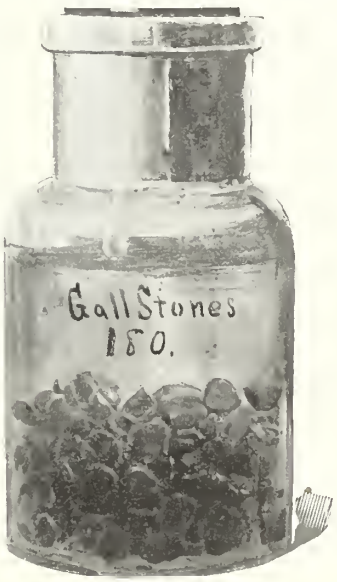


FIG. 3.

This patient made an uninterrupted recovery and left the hospital on the twenty-eighth day (Fig. 4).

FIG. 4.

Among the cases in abdominal surgery, diseases of the gall-bladder and its ducts hold an important place. They offer opportunities for surgical effects second to none, relieving as they do many formerly overlooked or misunderstood diseases of these passages.

The gall-bladder, the reservoir for bile, is situated midway of the under surface of the liver, and when its base extends below the lower border of the liver it lies in contact with the ninth costal cartilage. When of normal size it holds about an ounce of bile, and can be detected only by palpation when of abnormal size. The triangular or subhepatic space in which we find the gall-bladder and its ducts, is bounded internally by the reflexion of the mesentery attached from the head of the colon to its splenic flexure, walling off as it were the small intestine; while the reflexion of the peritoneum from the under surface of the liver, descending downwards over the kidney, duodenum, and vena cava, forms its lower boundary. These boundaries are landmarks in operative attacks upon the gall-bladder and its ducts. The gall-bladder is connected with the liver by connective tissue, over which is reflected the peritoneum from the gall-bladder. You are aware that the coats of

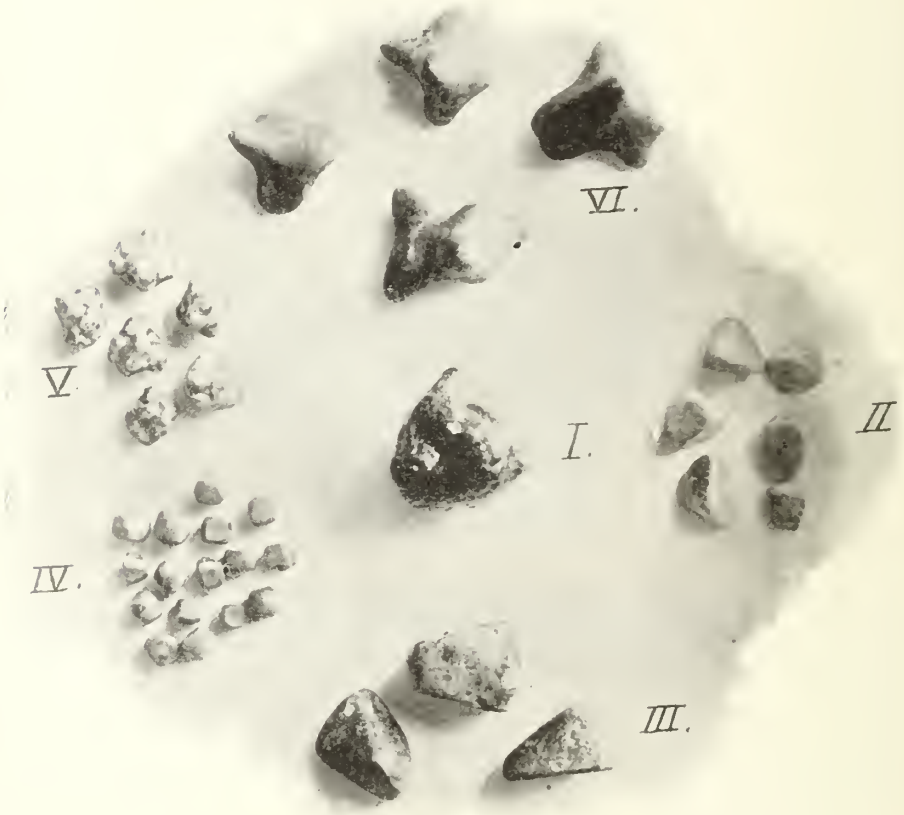
the gall-bladder are three, namely, first, serous; second, fibrous and muscular; and third, the mucous coat. The serous coat covers about three-fifths of its under surface. The other coats are more fibrous than muscular, and although elastic they have but a small amount of contractility. The mucous coat presents rugæ with spaces, which become circular at its neck, forming valves, causing it is presumed cholecystic colic, when for any reason its function is interfered with. The afferent and efferent blood-supply is extensive, as is also its nerve-supply, causing it to bleed freely on incision and to be extremely painful on irritation Pain from irritation to the gall-bladder and its ducts is referable to the region of the gall-bladder itself, the stomach and back on both sides at the lower angle of the scapulæ. The duct of exit and entrance of bile is called the cystic, one-twelfth of an inch in diameter and from one to two inches in length, joining with the hepatic duct at an acute angle to make the common or ductus choledochus communis. The hepatic duct is about a sixth of an inch in diameter and about two inches in length. It originates by branches from each lobe of the liver. This with the common duct is nearly straight, while the cystic is quite tortuous. The common or ductus communis choledochus is about one-fourth of an inch in diameter and three to four inches in length. It is the common carrier of bile from the two above mentioned ducts into the duodenum, and lies between the gastro-hepatic omentum, then passes downwards beneath the first part of the duodenum, and together with the pancreatic duct enters it on its inner and posterior side. It will be seen that these aids to digestion commence business in close proximity to each other. Catheterization from the gall-bladder to the duodenum is almost an impossibility, due to the rugæ or valves and flexure of the cystic duct. The removal of the gall-bladder for disease, its congenital absence, together with many experiments upon animals where it was removed, show conclusively that its existence is not necessary to good health.

Diseases of the gall-bladder and its ducts are of either an acute or chronic character, due in the majority of instances to the presence of gall-stones. Acute infection not infrequently follows in the wake of infectious diseases, such as the exanthemata, etc., the septic material being carried through the portal system or by abrasions from the presence of gall-stones. Acute empyema of the gall-bladder has been rapidly fatal in the past, yet early diagnosis and early operative interference will undoubtedly save the lives of many patients in the future.

The principal symptoms are previous attacks of biliary colic, vomiting, with pain referable to the stomach, gall-bladder, and back, usually spoken of as gastralgia or dyspepsia. On examination we find a circumscribed exudative area of induration around the gall-bladder, not always easily mapped out. With each attack there is a rise of temperature, as evidence of pus. When gangrene sets in it may rise to 105°, with the other evidences of profound septicemia. We must, however, differentiate from hepatic abscess, perforation of the stomach, renal and perirenal abscesses, and a gangrenous appendix. The treatment consists in prompt operative interference. The approach is in the manner just described, and when the peritoneum is invaded great care

should be exercised in disturbing adhesions and in making protection with gauze packing so as not to permit the escape of pus into the peritoneal cavity from the opened gall-bladder. Do not wash out, but simply introduce rubber or glass drainage. Removal of gall-stones (if present) or a sloughing gall-bladder can be done subsequently.

Chronic empyema can be either first treated by making a preliminary attachment of the gall-bladder to the abdominal parietes, and when adhesions are formed the bladder can be opened and drained, or this may be done at one sitting, providing there are already adhesions formed so as to cause drainage without danger.



I. Large, light brown, irregular shape, removed from the common duct, composed of pure cholesterine.

II. Ashen gray, faceted, composed of cholesterine, colored with bile pigment; removed from cystic and common ducts.

III. Has the appearance of chocolate mixed with streaks of white; composed of cholesterine, bilirubin, and carbonate of lime.

IV. Small, bright yellow cubes composed of cholesterine, and found in the gall-bladder only.

V. Shaped like agglutinated millet seeds; brown, with white interstices; composed of cholesterine and carbonate of lime.

VI. Large and shaped like jackstones, of a beautiful mahogany color: composed of cholesterine and bile pigment.

I here exhibit on this cardboard specimens of a variety of gall-stones that I have removed from different patients, which represent nearly all the varieties that you are liable to meet with.

Dr. Byron Robinson, of Chicago, states that in a personal observation of over five hundred autopsies many more people have gall-stones than is generally supposed, and undoubtedly many have them without any inconvenience whatever.

JAMES SYME, THE SURGEON—A BRIEF SKETCH OF HIS PROFESSIONAL LIFE AND LABORS.

BY HIS FORMER PUPIL, DONALD MACLEAN, M.D, LL.D.,
Ex-President American Medical Association, etc.

Professor Syme is universally acknowledged to be a striking figure in the history of modern surgery. His appearance upon the professional stage occurred at a critical and memorable time. In the first place, the practical application of the Baconian philosophy to Medicine and Surgery, under the commanding influence of John Hunter's genius, was just blossoming towards full and perfect fruition. In the next place, while Syme was still in the height of his power, the beneficent discovery of anesthesia, acting like a master-key or the wand of a magician, opened up to the eager and ambitious surgeon vast fields of usefulness previously unknown and entirely beyond the limits of his imagination.

Syme's professional career, it may truly be said, represents the first fruits of the greatest and most progressive era in the whole history of surgery, namely, the "Victorian." When he published his "Principles of Surgery" he gave clear and distinct expression to the gospel of surgery as it was known, taught and practised up to that time. That volume was cordially received by the profession everywhere as a remarkable production for so young a man. Professor Goodsir, one of his most famous pupils, in the hearing of the writer, remarked that "few men arrive at their principles at so early an age as Mr. Syme did."

The soundness and reliability of his principles stood the test of experience, and even at this late day command the respectful consideration of the student and practitioner of surgery. At the same time it is interesting and profitable to study the many changes and improvements which have taken place in the theory and practise of surgery between that time and the present.

The aim of this paper is to give as briefly as possible a fair statement of Syme's professional achievements in their relation to the history of surgery, in the hope that such recital may furnish inspiration and encouragement to the student of to-day. The spirit of mercenariness, so prevalent in our time, seems to be the curse of the medical profession. If anything I could say, or any example that I could adduce, could have the effect of overcoming this groveling financial tendency and stimulate a scientific and humanitarian spirit in the modern student of medicine, I should consider my time and labor well spent. The truth is that I am induced to write this sketch in the hope that the facts of Syme's professional history may have the effect of stimulating

youthful aspirants for professional distinction to follow his example and above all things to avoid the ridiculous and dishonored method so common in our day of tyros in the profession becoming "*specialists*" before they are either *surgeon, physician, or anything worth mentioning;* "fish, flesh, fowl, or good red herring;" a method and a practise which degrades the most merciful and humanitarian of professions into the most cruel and contemptible of trades.

Syme began life with the clearly defined intention of becoming sooner or later a "surgeon," in the highest acceptation of that term. With this in view he was careful to obtain a very thorough preliminary training in all branches of a liberal education. When the time came for him to devote himself to professional pursuits, he spent many years studying and teaching anatomy, with which, in due time, he associated the clinical study and observation of disease; and to these he added the careful and conscientious investigation of the nature and effects of morbid processes as demonstrated by post-mortem observation in the dead-room and the dissecting-room. By this wise course he laid broad and deep the foundations upon which the splendid superstructure of his life's work rested in all safety and security.

The records of such men as John Hunter, John and Benjamin Bell, Sir Astley Cooper, Robert Liston, and others, constituted for him guiding stars, as true and safe as any that the ambitious and venturesome navigator ever trusted to.

The methods and teachings of these truly great men were in all sincerity studied and utilized by Syme. In his written and spoken utterances he never failed to give full and generous credit to them, as well as to all other pioneers and original thinkers.

From those imperial hands Syme accepted modestly but confidently the scepter of the noble realm of Surgery, enlarged and refined, as it certainly had been, by their genius and labors. The responsibilities, no less than the honors, of this inheritance were appreciated by him to the fullest extent. He most certainly was not the man to rest satisfied with the results and achievements of his predecessors. On the contrary his motto was "Excelsior," and from the beginning to the end of his career he labored earnestly and honestly for the truest advancement of the science and art of surgery.

The fact has already been stated that Syme belonged to a transition stage in the history of surgery. Associated in his earlier years with the great men who adorned the profession in the generation immediately preceding the discovery of anesthetics, he lived long enough to see and appreciate the benefit to surgery and to suffering humanity which that beneficent discovery insured. The domain of safe and sound operative surgery Syme found confined within limitations which, to us of the present time, appear almost contemptible.

The surgery of the extremities, including fractures and dislocations, amputations, removal of tumors, opening abscesses, the ligature of arteries, and a few other conditions, constituted a very large proportion of the science and art of surgery. To these Syme added many striking advances, and in that way alone fully established his claims to immortality as a master in the science and art of surgery.

The resection of joints, especially the elbow and shoulder, originally placed

by Syme upon a scientific basis, led the way for successful and satisfactory additions, including the hip, the knee, the ankle, and the wrist, all of which are now universally recognized as good, sound, surgical procedures. His modifications of the former methods of amputation of the limbs, both superior and inferior, at various points, and above all his amputation at the ankle, constitute of themselves a surgical record of which any man might well feel proud. His teachings and practise in these particular instances have thoroughly stood the test of time and have for many years ceased to be subjects of controversy or argument. During his life, and afterwards, skepticism had occasionally reared its head against some of his teachings and methods, and active discussion had resulted therefrom.

For example, during the Civil War in this country a special commission of very able and impartial surgeons was appointed to consider and report upon the whole subject of the various methods of amputating at the ankle-joint, and the decision was overwhelmingly in favor of Syme's original operation.

In the department of the surgery of the blood-vessels, the influence of his teachings is even more valuable. His methods of dealing with wounded arteries, aneurisms, etc., left an impression upon surgery and pathology that has been able to stand to the fullest extent the test of time and experience, and constitute of themselves a noble monument to his genius.

John Hunter, in 1785, secured a vast step in advance in the pathology and treatment of aneurism. This great achievement was the direct and legitimate fruit of his (Hunter's) inductive method of reasoning from the safe and reliable basis of the *actual observation* of facts. He carefully studied Nature's methods of dealing with aneurism, and it occurred to him that the surgeon's best chance of success must consist in imitating as closely as possible the example thus obtained. True, Nature did not always succeed in her curative efforts, and so possibly it might be with her humble imitator, the surgeon; nevertheless, that seemed to Hunter the most reasonable and the best guide to follow.

Consequently, the Hunterian operation for aneurism was established, and notwithstanding annoying failures through defect of "technique," the principle was fully established and widely, if not universally, accepted.

The two practical problems, viz., "the treatment of aneurism" and "the treatment of wounded arteries," are, of course, very nearly related to each other, and the whole subject was laboriously and successfully worked out by a galaxy of practical surgeons such as the world has seldom known — John Hunter, Jones, Hodgson, Lawrence, Travers, Cooper, Abernethy, Liston, together with Drs. Post, Valentine Mott and Paul Eve in this country. To these men Syme himself declares "is to be ascribed the honor of leading the way by their bold and successful operations, resting on the sound foundation of correct pathology, to the present treatment of aneurism, which compares remarkably by its simplicity and safety with the complexity and danger of the older methods." While thus giving ample credit to those great men, who immediately preceded him, or who were the cotemporaries of his earlier years, the fact is that in Syme's own experience and teachings these great all-important principles of surgery obtained their clearest exposition and their most complete demonstration.

The writer's American Edition of Syme's Surgical Works, pages 108 to 114 inclusive, contains as clear, succinct and comprehensive a presentation of the subject of wounded arteries as can be found anywhere, and it is very little, if at all, modified in essential details since published in the first edition of "The Principles of Surgery," published by Syme in 1832. Vast revolutions in the theory and practise of surgery have undoubtedly occurred in the interval, but so far as the treatment of wounded arteries is concerned little, if anything, has been taken from or added to the fundamental doctrines, condensed and confirmed as they were by Syme, following as he did in the footsteps of his great predecessors, who were fortunate indeed in having so able and energetic a successor to finish and round out the result of their splendid efforts in this vastly interesting and important field of surgery.

Syme ligatured the femoral artery thirty-eight times for aneurism, and all his patients recovered.

His bold and original operations upon the carotid, the subclavian, the iliac, and other arteries, are too well known to require detailed description here. His independent and ingenious theories, upon the strength of which he ventured to set aside, in certain instances, the long-established and universally accepted teachings of John Hunter, and the brilliant success which attended his practical application of his theories to such great aneurisms as those of the axillary, carotid, and iliac, are surely calculated to awaken enthusiasm in the mind and heart of any man, young or old, who has the good fortune to be blessed with surgical tastes and instincts.

Robert Liston, who was Syme's immediate predecessor, both in the Royal Infirmary of Edinburgh and in London, enjoyed an unprecedented fame as a bold, rapid and successful operator. In fact, it is very doubtful if he has ever been equaled as an *operator* by anyone in the whole history of surgery. Lithotomy and amputation of the thigh were generally supposed to be his most brilliant operative procedures. With his left hand he controlled the bleeding, and with the right he amputated even at the hip-joint with two rapid sweeps of the knife.

Syme never aspired to rival Liston in the matter of manual dexterity, but it cannot be doubted that he far surpassed him as a pathologist, as a diagnostician, and as a thoughtful, industrious, and successful laborer for the discovery and establishment of facts and doctrines which are calculated to constitute valuable additions to the science and art of surgery.

Liston was a great and brilliant operator for the extraction of a calculus from the bladder, for example, but Syme discovered and taught new and improved views as to the whole subject of stone in the bladder and the various operations for its relief.

The pathology and treatment of stricture of the urethra Liston found in a state of almost Egyptian darkness and confusion, and he did very little to develop or improve that very important surgical field. Syme, on the other hand, with the utmost patience, diligence and skill, placed not only the pathology and anatomy, but also the methods of treatment, of this most distressing condition upon a foundation so safe and sound that to this day his doctrines and his practise have undergone very little modification for the better.

This particular modicum of Syme's life-work seems to the writer to demand a more detailed consideration, and I venture to hope that the Editor of this journal, being an appreciative and friendly person, will deal mercifully or rather liberally with me in respect of the question of space, and in that way grant me the requisite facilities for accomplishing, in my humble way, a most sincere and genuine labor of love.

To begin with, I desire to quote here, in full, the preface to the first edition of Syme's monograph on "Stricture of the Urethra," which has always appeared to me as the very embodiment of force and elegance of style in literary expression. It reads as follows:

PREFACE TO THE FIRST EDITION.

When attention has been long devoted to the attainment of an important object, and when the most elaborate efforts have proved ineffectual for the purpose, it is not easy to persuade those engaged in the pursuit that they have overlooked a simple and easy mode of obtaining success. The method of treating obstinate strictures of the urethra, recommended in the following pages, was communicated to the profession five years ago, through the periodical press; and again, two years ago, in a collection of surgical essays; but, so far as I know, it has not yet been adopted by others even in a single instance. Being deeply impressed with the importance of the subject, I feel it my duty to make another attempt, with the view of awakening attention to it, by publishing in a separate form full details of the procedure, together with its advantages, positive and comparative, and also further evidence of its efficacy, from cases in public as well as in private practice. Having done this, I leave the matter to the profession, trusting that, whatever may be their decision, they will at least give me credit for an earnest desire to render the opportunities committed to me conducive to the improvement of Practical Surgery.

Edinburgh, 1st November, 1849.

As the result of this earnest effort on Syme's part, the great question of the pathology and treatment of this most delicate and urgent of surgical ailments was pretty thoroughly set at rest; his teachings and practise becoming every day more and more generally accepted. His classification of the different forms of stricture, first announced in 1842 and reiterated in his monograph of 1849, stands unassailable to-day. It is as follows: "With reference to their symptoms and treatment, strictures may be divided into: 1st, Imaginary; 2d, Slight; 3d, Confirmed; 4th, Irritable; and 5th, Contractile."

Even the publication in 1849 above referred to, with all its wealth of sound pathology and practical demonstration of actual experience, fell short at first of carrying universal conviction to the professional mind. On the contrary, a discussion of the most uncompromising and acrimonious description arose in regard to at least one most essential principle of urethral surgery promulgated by Syme. The whole controversy—and it was a long and bitter one—raged around the signification and interpretation of the word "*impermeable*."

Syme freely admitted the existence of the condition known as "*occlusion*" or "*obliteration*" of the channel of the urethra, but he held that that condition was fundamentally distinct from that of "*stricture*." Entirely different principles and methods of practise applied to these absolutely diverse conditions.

The term "stricture" he regarded as expressive of a condition in which, although the channel of the urethra might be very greatly contracted and no less seriously altered in structure by long-standing irritation, nevertheless if even the smallest quantity of urine—even a drop at a time—is able to find its way from the bladder to the meatus, it is still to be regarded as a case of

"stricture," which by the exercise of the requisite amount and degree of skill, patience and perseverance may be made amenable to safe and successful surgical treatment. His own words are: "I maintain that no '*stricture*' is *impermeable*, and if a drop of urine is able to escape, a director of sufficiently small size may be introduced; and in support of this position I appeal to the fact that, although patients alleged to labor under impermeable contractions have come to me for relief from the most distant parts of Scotland, England, and Ireland, from the Colonies, and from America, I have never, either publicly or privately, been unable to pass an instrument since I became satisfied that there was no true impermeability. Believing, from my own experience, that the establishment of this pathological fact was of great importance in practise, I was sorry to see it stated in the medical societies and journals of London, that whatever might be the case elsewhere the cases occurring there were frequently so aggravated as to be completely impermeable; and supposing that the gentlemen who had engaged in this discussion must be anxious to ascertain the truth of a question so practical, I offered to take under my charge, in the Royal Infirmary of Edinburgh, any cases deemed impermeable in a London hospital, and publish the result of their treatment. This offer, made in all sincerity, and to which I still adhere, was nicknamed a 'challenge,' and characterized as a vain boast, but does not on that account the less entitle me to maintain my position; and leaves a heavy responsibility with those surgeons who still obstinately testify their blind faith in the old doctrine of impermeability, by needlessly puncturing the bladder, and recklessly cutting into the perineum.

"In conclusion, I beg to state, as the principles of my proposal: 1. That there is no stricture truly impermeable, and that with time and care, in every case, an instrument may be passed through it, and serve as a guide for the knife. 2. That all strictures which cannot be remedied by simple dilatation admit of effectual relief only through a free division of the contracted part of the canal. 3. That this object can be obtained with certainty and safety only by an external incision, in a line corresponding with the raphe of the perineum, upon a grooved director passed through the stricture. 4. That the only after-treatment required is the introduction of a catheter during forty-eight hours, with the subsequent use of a full-sized bougie at distant intervals. 5. That the operation, if properly performed, is free from any risk whatever of hemorrhage, extravasation of urine, or fistulous opening."

In executing the details of his operation Mr. Syme depended very greatly upon the grooved staff which bears his name, and which is now generally known to the profession. The facility, dexterity and safety with which Syme manipulated this delicate and (in inexperienced hands) dangerous instrument constituted a never-ending source of wonder and admiration to all who had the privilege of beholding it.

It is outside the province of this paper to enter upon any detailed description of the *modus operandi* of this or any surgical procedure, or to dwell in detail upon the results which Syme's elaborate statistics so eloquently proclaimed; as he himself once said in another and entirely different connection, "that is supposed to be generally known!"

(*To be continued.*)

IN MEDICAL CONCLAVE.

WAYNE COUNTY MEDICAL SOCIETY.

At the regular meeting on March 31, Dr. W. Warren read a paper on the subject of "Tracheitis and Chronic Bronchitis," a subject important to all general practitioners in humid zones. The treatment of chronic bronchitis being, as a rule, unsatisfactory, the members listened with deep interest to the author's exposition of this part of the subject. A great deal of reliance was placed on hygienic measures and the use of the cold sponging of the throat and chest advocated. Change to a dry and more equable climate, if the patient has means, was also advised. In the local treatment of tracheitis and chronic bronchitis the author recommended the use of alumnol, the balsamics, and such emollients as petrolina, which can be beneficially applied through the laryngeal syringe. Dr. I. L. Polozker followed with a paper on "The Treatment of Vaginitis in Children." The author claimed for formaldehyde the best results in the treatment of this affection, it being efficient, safe and free from the disadvantages arising in the use of permanganate of potassium or silver nitrate.

At the meeting held April 6, Dr. E. D. Rice, of Flint, Mich., read an able paper on "The Physiological Functions of the Liver and Their Relations to the Digestive Processes." That function of the liver which has to do with the elimination of toxins formed in the intestinal canal, and in the process of metabolism in other parts of the body, formed the most interesting part of the topic and of the discussion. Dr. F. Maas related the history of a case of a man who died of pyemia originating in the liver, yet this organ had so withstood the attacks of the streptococci, cultures of which were obtained from the liver and blood, that it had betrayed no sign of the disease until death was imminent.

DETROIT ACADEMY OF MEDICINE.

At the regular meeting held April 12 there was no formal paper, because the essayist of the evening was unavoidably absent. However, there were several cases of more than usual importance reported, and a free discussion brought out interesting points.

Dr. Connor reported a case of a girl of twelve previously well, with no history to note except that she had used very large quantities of coffee at all meals. She began to complain of a severe headache, chiefly on the left side, and soon began to be troubled with impaired vision in the left eye. On examination it was found that she saw objects normally in the erect position with the right eye, but with the left everything was inverted—*i.e.*, with her left eye she saw as would be expected from our knowledge of the laws of optics, in a sort of "mirror reading" style, while with the right she saw as she had learned by long training of the brain. No pathological changes could be found to account for this curious condition. The case, however, does show that we really do have an inverted image of an object on the retina, and that it is through the

influence of the brain wholly that they appear upright to us. The condition passed away in a few days without much treatment.

Dr. Cobb once had a patient with thirty diopters of myopia, on whose retina the image, instead of appearing inverted as would be expected, was upright. This was not quite a parallel case, since by the law of optics it is easily explained.

None of the neurologists present could explain the psychological puzzle, except to say that in some way the nerve impulses to the sight center from the retina must be cut off on that side temporarily. It is harder to give the reason for such interruption of function.

SAGINAW COUNTY MEDICAL SOCIETY.

At a regular meeting of the Society on March 28, 1898, the committee appointed to investigate the charges preferred against Dr. W. S. Connery reported as follows:

To the President of the Saginaw County Medical Society:

SIR—The committee appointed by you in accordance with a resolution of the above named Society made on March 11, 1898, the duties of such committee being to investigate and report on charges preferred against W. S. Connery, M.D., a member of said Society, beg leave to report that after notifying the said W. S. Connery, M.D., of their appointment, time and place of meeting, and requesting him to appear before your committee and make answer to said charges, he has failed to answer either by presence or by letter.

After reading the article published in the *New York Medical Record* of January 8, 1898; also the apology by the Editor of the *Medical Record* for publishing the same, in the issue of February 26, 1898, made to Sir Wm. Broadbent, the author of said article on "Angina Pectoris," published in the *Medical Record* of January 8, 1898, by the said W. S. Connery, M.D., as his original work, and said by him to have been read before the Saginaw County Medical Society by the said W. S. Connery, M.D., we can come to no other conclusion than this, viz., that the said W. S. Connery, M.D., is guilty of plagiarism in publishing as his own production the said article on "Angina Pectoris;" also guilty of misrepresentation in saying that this paper was read before the Saginaw County Medical Society when it had not been so read before the Society; also in claiming that he was at that time president of the Saginaw County Medical Society, which he was not at the time said article on "Angina Pectoris" was published in the *Medical Record*, viz., January 8, 1898. He was thereby guilty of falsehood and misrepresentation and conduct unprofessional and ungentlemanly, and prejudicial to the best interest and reputation of the Saginaw County Medical Society, of which he is now a member; also his non-appearance before your committee would seem to be a confession of the truth of the charges preferred, and we your committee believe him guilty as charged.

SAMUEL KITCHEN, M.D.,
EUGENE W. DAVIS, M.D.,
T. M. WILLIAMSON, M.D.,
Committee.

Upon motion the above report was received and adopted and the committee discharged.

It was moved by Eugene W. Davis, M.D., and seconded by J. W. McMeekin, M.D., that W. S. Connery, M.D., be and is hereby expelled from membership in the Saginaw County Medical Society for unprofessional conduct, and that a copy of the above report and the action of the Society thereon be furnished the *New York Medical Record*, THE MEDICAL AGE of Detroit, Mich., and the *Physician and Surgeon* of Ann Arbor, Mich., for publication.

The motion was carried by a unanimous vote.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE SENTIMENT FOR WAR.

The period of its manifestation is not a fitting time for the analysis of any strong emotion. For its critical examination conditions more favorable to temperate judgment are demanded. The war sentiment which is now so strongly asserting itself possesses a deep physiological and psychological interest. In origin it probably does not differ from other and previous manifestations of the same spirit. The feeling for war is one of the oldest emotions. Its origin is deep-seated and fundamental. It emanates from the innermost recesses of consciousness. Like the "let-us-go-forth-and-kill-something" sentiment, it is an impulse of universal prompting. It may temporarily satisfy itself in milder forms of murderous diversion, but it reasserts itself with perennial energy and can neither be repressed nor satisfied by esthetic indulgence in the pleasures of the chase or the contests of the arena.

The instinct to which the war sentiment is most deeply allied is probably that of revenge. In revenge must be sought the origin of most penal measures, and war is always one of these. The war spirit, however, often manifests itself under conditions which do not presuppose this origin. It arises as an expression of an atavistic state of feeling. For years past the eyes of the world have been watching the nations vie with each other in the preparation of their armaments. Russia, Great Britain, Germany, and France, all nations which are powerful, prosperous, and advancing, are consumed with a spirit of unrest. Tormented by unsatisfied pride, they dread war, yet are hungry for it. They are actuated by no definite notion of revenge. They are obeying an impulse deeper than this, and associated with their actual physiological survival.

There is little reason to believe that war is actually undertaken for the purposes which those who wage it avow. The justification of unselfishness seldom or never applies. The Crusades are undoubtedly often quoted as an example of war for ideal reasons. The Crusades were presumably sanctified by a religious motive, but were really justified by the opportunities they afforded for gratifying the plundering and predatory instincts of their votaries. Sympathy for the suffering of others, altruistic motives generally, are not the incentives; they only furnish the pretexts for conflicts. The sentiment

of pity naturally has prescribed limitations. It is incapable of including in its embrace the whole field of fellow-suffering. The sympathetic man is a product of peculiar states and conditions. Sympathy is not generally an actively vital sentiment. It is impossible that those who can the next day forget a harrowing calamity, such as the inundation which recently occurred in Shawneetown, can actually be thrilled with pity when they learn that a few savages have been murdered in the heart of Africa or that a number of dagos have met disaster in Cuba. With much hypocrisy it may be pretended that these things shock us very much, but did they really do so we should ourselves be the victims of a hyperesthetic temperament, which could only be regarded as neuropathic.

The ultimate justification of war is to be found in a perfectly natural and salutary sentiment of hatred. There may be those who imagine war is too wicked for the sensitive conscience of the modern nation. Recent experiences must have convinced them otherwise. There is no war, however fratricidal, that would not excite the keenest human interest, and the outcome of which would not be followed with as few feelings of active resentment as one would bring to a prize fight or a yacht race.

Why should it be pretended that we dislike war when we really like it? Does the expression of a natural instinct require the apology of hypocrisy? War and courage have done as much for mankind as charity. The extermination of the unfit has been as advantageous as their preservation. "We are not great enough," says Frederick Nietzsche, "not to know hatred and envy. Therefore be great enough not to be ashamed of them." Not the least of the benefits to be derived from war is that it enables us to renew our allegiance to certain neglected vices, which we are not as yet quite ready to do without.

EDITORIAL NOTES.

A Dangerous Precedent.

In a letter which Dr. A. M. Phelps contributes to the *New York Medical Journal* is to be found a severe arraignment of the New York State Board of Health, for the general incapacity it has displayed in dealing with the antitoxin question. The Board has hitherto manufactured its own antitoxin, and a bill is now before the Legislature to deprive it of this function. That the State Board has not been able to comply with the requirements of modern competition is a result which those who have watched the history of State-aided industries must have expected. That a State board of health should engage in a purely commercial enterprise is a departure from its normal functions, the significance of which, had it been more generally appreciated, would assuredly have been more universally condemned.

ITEMS AND NOTES.

FLORENCE, Italy, now has a Pasteur institute.

A CONGRESS of midwives will be held in Turin, Italy, in June of this year.

A HYDROPATHIC CLINIC has been established at the University of Heidelberg.

THE infant mortality of England and Wales in 1897 was 156 per 1000 births.

DR. POZZI, of Paris, the well known gynecologist, has been elected a member of the French Senate.

PAINTING a fiery red nose with a five-per cent. solution of boric acid is said to bleach that member.

IN ENGLAND the use of chloroform as an anesthetic is growing less, ether being now used almost universally.

THE newly-established medical schools for women, at St. Petersburg, recently opened with 165 students.

DR. PIERRE BUDIN has been appointed Professor of Obstetrics in succession of the late Dr. Tarnier in Paris.

A MONUMENT has been erected in the Salpêtrière to the memory of the distinguished French physician Duchêne.

IN Bulgaria the proprietor becomes liable to fine and imprisonment if a medicine fails to fulfil its advertised claims.

A WESTERN newspaper threatens to publish the name of the attending physician in each case where the patient dies.

THE 275 medical journals in the United States are said to enjoy a combined annual circulation of over 16,000,000 copies.

THE announcement is made that Dr. Leopold Muller, of the University of Vienna, has discovered the bacillus of trachoma.

THE epidemic of smallpox at Middleborough, England, begins to show signs of abatement, but there have been upward of 900 cases.

THE Countess of Warwick has given birth to a boy. Professor Schenck had been consulted, and the sex was satisfactorily arranged beforehand.

THE bill to appropriate $100,000 annually for two years, to Johns Hopkins University, has been defeated in the Maryland Legislature.

PASTEURIZED butter is the latest antiseptic novelty. It consists of butter made from Pasteurized cream, and is thought to have a better flavor and to keep better than the ordinary butter.

At Green River, Wyoming, a series of wells have been discovered yielding 60,000 gallons daily of concentrated soda solution, from which 100,000 pounds of pure sal soda are daily crystallized.

The regulations restricting the privileges of the Ecole de Medicine have been rescinded, and the old order of things restored. Foreigners may now enter and matriculate as in the past.

Dr. Jules Pean, the celebrated French surgeon, who died not long ago, always talked incessantly during the performance of an operation. His practise was said to pay him $200,000 a year.

A fund has been organized for the purpose of presenting to Sir William Stokes, of Dublin, a testimonial to celebrate the occasion of his silver jubilee as Professor of Surgery in the College of Surgeons, Ireland.

A taxidermist of Reading, Pa., recently died of malignant diphtheria, contracted, it is said, from a raccoon which he had mounted some days previously, and which had apparently died of that disease.

At Oran, Algeria, the health officer of the port, named Tremouillet, who is still in active service, is said to be 126 years of age. He was born in 1771, was captured by Oran pirates in 1789, and has never left the town since.

The sixty-seventh annual meeting of the British Medical Association will be held at Edinburgh July 26, 27, and 28, 1898, under the presidency of Sir Thomas Grainger Stewart. The scientific business of the meeting will be conducted in sixteen sections.

The death is reported near State Road, Del., of Stephen Smith, colored, at the advanced age of one hundred and eighteen years. He is said to have been the father of forty children by eleven wives, and to have had 108 grandchildren and 65 great-grandchildren.

A bill intended to limit the lawful use of hypnotism to licensed physicians will soon be introduced into the New York Legislature, on the ground that its use by irresponsible persons is dangerous and opposed to the public good. The bill should receive the support of all medical men.

"I have not failed once for many years, by putting a blister over the fourth and fifth dorsal vertebræ, to put an end at once to sickness of pregnancy during the whole remaining period of gestation, no matter at what stage of the case I was consulted." So says Professor Parvin.

Truth puts these words in the mouth of a physician regarding his prescriptions: "What I have written I have written, and neither I nor you nor anybody else can read it." And the *British Medical Journal* adds: "There is a good deal of *Truth* in it, and we are very sorry to say a little truth, too."

Dr. Mark Chado, surgeon-general for the past three years of the eastern division of the Cuban army under Gen. Calixto Garcia, has arrived in New York. He is here for medical treatment of the results of exposure, privation, and a bullet wound received while discharging his duties as surgeon on the field.

"Abuse of Medical Charity in Boston" has been the subject of renewed discussion, both on the part of hospital physicians and those engaged in private practise. That there is a certain abuse seems to be generally recognized by all disputants; the suggestion, however, of an adequate remedy remains as vague as heretofore.

Criticism has been freely bestowed by the daily press upon a physician of New York City who declined to respond to a night call from a grocer who had refused to pay his doctor's bill. Perhaps some time the public will learn that a good way to make sure of timely medical attention when needed is by paying for what it receives as it goes along.

Sir Wm. Playfair, in a communication to *The Lancet* of March 5, says: "I am not retiring from King's College on account of the age limit, as you state — I should have nearly four years to run to reach that — but because, having completed a quarter of a century's service as Professor of Obstetrics, I think it is now high time to make way for others."

An exchange reports that in an examination that was made of some "electric belts" sold by a street fakir, it was found that beneath a strip of gauze was a layer of dry mustard. When the wearer perspired a little, the mustard was moistened and set up a burning sensation, and the deluded victim believed a current of electricity was passing through him.

The Austrian Government announces that on presentation of the proper evidence, persons that have been bitten by rabid animals, and are too poor to pay their way to Vienna in order to take a course of the Pasteur treatment, will be furnished with free transportation to and from the Austrian capital. Arrangements have been made for the maintenance of such patients during the treatment at the General Hospital.

A decree has been issued by the Prussian Government forbidding the future attendance of foreigners in the machinery and engineering department of the Berlin Technical High School. This action has caused much consternation among the foreign-born students in Germany, as it is believed the discrimination against foreigners will be extended to the universities in Prussia and to all the faculties, medical as well as engineering.

Several hundred of the sufferers in the recent typhoid epidemic at Maidstone, England, have decided, it is stated, to bring a combined action against the water company to obtain compensation for the losses which they have sustained. The company, it is stated, has expressed a willingness to make a grant of £3000 as compensation. This offer has been made, however, on certain conditions which the consumers do not see their way to accept.

Dr. Pietro Grocco, Professor of Clinical Medicine at Florence, was recently brutally assaulted by two men whose brother had died of tuberculosis in his ward at the Hospital Santa Maria Nuova. According to the usual custom an autopsy was performed. When the deceased's two brothers learned of this they went to Dr. Grocco's house, and gaining admittance to his office under the guise of patients, set upon him and beat him very severely before assistance could be obtained.

The rhinoceros at the London Zoological Gardens has lately undergone a surgical operation, namely, the removal of one of its horns. A proceeding of this kind, although not in itself either very difficult or serious, yet involves a considerable amount of risk to those performing it, on account of the huge bulk of the patient. In the case of the elephant any surgery is much more feasible, because of the wonderful sagacity which leads that animal to submit to beneficial interference at the hands of the surgeon. The rhinoceros, however, is on an entirely different intellectual level.

Surgeon-General Van Reypen, of the Navy, has received over three hundred offers from physicians of service as acting assistant surgeons in the Navy. These offers cannot be accepted until Congress authorizes the temporary appointment of acting surgeons. There are about twenty vacancies in the regular service, for which there are few or no applications because of the humiliating treatment to which newly appointed assistant surgeons are subjected. If Congress will remove these objectionable features and will authorize the appointment of acting assistant surgeons, there will be no lack of competent men for vacancies.

The *New York Evening Post* of March 26, in a semi-editorial article, shows the following remarkable appreciation of the work and character of physicians: "Their opportunity is unique, but their influence and assistance in the history of our households is a great testimony to the sympathy and patience and large-hearted comprehension of man with and for his fellow man in this urgent, crowded, self-seeking age of ours. Human brotherhood, which has no name or guild, is vitally alive among our doctors. Sleepless nights and anxious days, hours of tense apprehension, the exertion of almost superhuman ingenuity to relieve pain, mark the going to and fro of many a quick-moving 'buggy' in our busy streets; and if one in a thousand is so fortunate as to acquire wealth as the result of his practise, let us rejoice for him."

The President of the Berlin Police has published a rescript of regulations for the purpose of dealing with unlawful competition in the medical profession. One paragraph rules that persons who have obtained a medical degree in a foreign country only may not use the titles "Arzt," "praktischer Arzt," "praktische Aerztin," except with a suffix clearly expressing that the title has been obtained in Germany. Another paragraph deals with the various categories of bone setters who, without having passed medical examinations and obtained a degree, publicly offer to carry out medical treatment and give medical advice professionally, are forbidden henceforth to use titles such as "Arzt" (medical practitioner), "surgeon," "oculist," "dentist," "veterinary surgeon," or even such as "homeopathist," "hydropathist," "specialist," "magnetopathist," "naturarzt," etc. The title "qualified medical assistant" (Heilgehlife) and "masseur" or "masseuse," may be used only by such persons as have been qualified by the State Medical Officer in Berlin or Charlottenburg.

NEW PUBLICATIONS.

DISEASES OF WOMEN.

This is a plain statement of the various local disorders in women viewed from the clinician's standpoint. The book is eminently practical, and contains much that is new and attractive in arrangement and presentation of the various subjects discussed. The first six chapters are devoted to symptoms, as detailed in the consulting-room, and will prove of great service to the young practitioner whom experience has not yet taught to estimate the significance of aches, pains and the nerve cries of local disease, or to sift the essential and true symptom from its counterfeit presentment. This is the only work of the kind of which we have knowledge which goes into the minutiæ of the minor ailments, the histories of which are daily poured into the listening ears of the much-tried physician. In the remaining chapters the various disorders discussed are carefully presented, and the methods of treatment set forth, both medical and surgical, are conservative as well as progressive, so that the teachings of the author may be followed with safety. The book is a good one, and will add to the reputation of its already distinguished author. Bound in dark-red cloth, with gilt lettering, and printed on fine paper in clear type. W. P. M.

Diseases of Women. A Clinical Guide to Their Diagnosis and Treatment. By G. Ernest Herman, M.B. Lond., F.R.C.P., Obstetric Physician to and Lecturer on Midwifery at the London Hospital, etc., etc. One volume of 886 pages, octavo, profusely illustrated; extra muslin. New York: William Wood & Company, 1898.

BOLLINGER'S ATLAS OF PATHOLOGICAL ANATOMY.

The attention of the medical reader has already been favorably directed in these pages to the German edition of Dr. Bollinger's work on Pathological Anatomy. The English translation of this superb series of manuals will be a great boon to the medical student and practitioner. As a handbook of Pathological Anatomy Dr. Bollinger's work has seldom been equaled and never surpassed. It is illustrated with 120 colored plates, which are exquisite pieces of workmanship, being reproduced in fifteen colors from original aquarelles by the painter Schmidtson. Accompanying each plate is a brief record of the case from which the illustration is made. The atlas will be exceedingly valuable for reference and comparison of post-mortem findings. The evidence of patient and indefatigable industry the compilation of this work displays can only secure for it the highest approbation.

Atlas and Essentials of Pathological Anatomy. By Dr. O. Bollinger. Volume I. New York: Wm. Wood & Company.

DAY-DREAMS OF A DOCTOR.

These day-dreams are not particularly dreamy. They consist of a series of matter-of-fact essays, most of which concern themselves with popularizing the teachings of medical science or familiarizing the reader with the customs of medical practise. They do not exhibit any high degree of imagination, and there is nothing but their title that suggests that they are "of such stuff as dreams are made of." The author's pages, however, constitute pleasant reading. The rigorous conventionality of thought and sentiment which pervades them will keep the reader from being startled by any unexpected flights of originality. Nor will the reader in perusing these pages be without danger of lapsing into a state of somnolence favorable to the continuation of day-dreams on his own account.

Day-Dreams of a Doctor. By C. Barlow, M.D. Buffalo, New York: The Peter Paul Book Company.

THE CAT.

This is a contribution to Comparative Anatomy, which represents an achievement of which the author and publisher may alike be proud. The cat, in many respects, lends itself to comparative study more advantageously than any other mammal. The method of study pursued in the present

volume consists in a careful description of each bone and a comparison of its resemblances and differences with the corresponding bone of the human body. The work is one of importance, and the excellent manner in which it is exploited betokens a highly commendable enterprise on the part of its publisher.

Mammalian Anatomy. A Preparation for Human and Comparative Anatomy. By Horace Jayne, M.D., Ph.D., Director of the Worcester Institute of Anatomy and Biology, etc. Part I: The Skeleton of the Cat; Its Muscular Attachments, Growth, and Variations Compared with the Skeleton of Man. Over 500 original illustrations. Philadelphia: J. B. Lippincott & Co.

INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX.

The new developments of medicine during the past twelve months have been carefully recorded in the sixteenth annual issue of this work. Among the new features will be noticed an atlas of the bacteria pathogenic in man. A large number of beautiful illustrations accompany the practical description of the methods of isolating and examining the bacteria which are most commonly encountered by the general practitioner. The Annual more than maintains the reputation it has already achieved.

The International Medical Annual and Practitioner's Index. A Work of Reference for Medical Practitioners. Sixteenth year. New York: E. B. Treat & Co., 1898.

THE FATTY ILLS.

The author in this work presents his views on the effects of fatty degenerations in general. He endeavors to determine what fatty degenerations are normal, what are abnormal, and what are masquerades. He proceeds after this to discuss fatty degeneration as a preservative process, and follows this by his ideas on diagnosis and treatment. The book indicates that Dr. Cutter has given considerable thought to the matter of which he treats, and that he has closely studied the influence of food in health and disease.

Fatty Ills and Their Masquerades. By Ephraim Cutter, M.D., LL.D., and John Ashburton Cutter, M.D., B.Sc. New York: Stettiner Bros.

A COMPENDIUM OF INSANITY.

The author of this little work has, in a condensed and concise form, compiled a compendium of mental disease which will be useful and convenient to both physicians and lawyers. The work is very simply and clearly written, and will satisfactorily fulfil the purposes for which it is designed.

A Compendium of Insanity. By John B. Chapin, M.D., LL.D. Illustrated. Price, $1.25. Philadelphia: W. B. Saunders.

Messrs. Lea Brothers & Co. announce for early publication the following books: A Manual of Otology, by Gorham Bacon, A.M., M.D.; The Treatment of Surgical Patients Before and After Operation, by Samuel Brickner, M.D.; A Text-book of Dental Pathology, Therapeutics, and Pharmacology, by Henry H. Burchard, M.D., D.D.S.; The Principles of Treatment, by J. Mitchell Bruce, M.D., F.R.C.P.; Diseases of the Nose, Throat, Nasopharynx, and Trachea, by Cornelius G. Coakley, M.D.; Diseases of Women, by Francis H. Davenport, M.D.; A Treatise on Gynecology, by E. C. Dudley, A.M., M.D.; A Text-book of Anatomy, by American Authors, edited by Frederic Henry Gerrish, M.D.; Manual of Skin Diseases, by W. A. Hardaway, M.D.; The Principles and Practice of Obstetrics, by American Authors, edited by Charles Jewett, M.D.

THE PROGRESS OF MEDICAL SCIENCE.

MEDICINE.

Insomnia.

Speaking editorially in regard to sleeplessness, *Modern Medicine* says:

"In not a few sleeplessness is the result of long indulgence in pernicious habits, mental and physical, in regard to sleep, such as irregular hours, various dissipations, the conning over after retiring of the difficulties and reverses and perhaps the successes of the day. Some people are rather loath to believe how much can be done to recover the power of going to sleep at will. It is vain to detail to them the fact that Wellington, Napoleon and Grant were able to lie down on the field of battle at any time and take a short sleep, if needed. They should be encouraged in the effort; every cause of disturbance removed; and such conditions sought as will bring about composure of mind.

"In the treatment of insomnia, then, our first duty is to seek out diligently and to right intelligently such obvious causes as may exist so as to remedy derangements whether of stomach or intestines; to stop the ingestion of unsuitable food and drink; to relieve constipation; to stimulate the free elimination of fatigue products; to relieve local irritations and reflex disturbances; to stop overwork, and bring the daily duty within the capacity of the worker; to relieve anxiety; to correct, as far as possible, all disturbances of circulation; to relieve anemic and debilitated conditions; to secure due regard to sanitary requirements; to cultivate good habits of sleep. In all this our aim is to remove all sources of irritation, direct or reflex, from the cerebral cells; to supply them with ample nutrition, and to cultivate healthy habits in them. Not until these indications meet is the resort to hypnotics legitimate, unless it is to overcome a temporary condition, and further use of them is injudicious, if not injurious."

The Pipe-Face.

It is declared that the constant habit of smoking pipes has a perceptible effect upon the face. The pressure of the lips to hold the pipe in position increases the curvature of the lips around the stem, and the muscles become more rigid here than in other parts, says the *New York Medical Record.* Thus the lips at a certain point become stronger, and the pipe is unconsciously held in the same habitual position. After long continuation of the habit small circular wrinkles form parallel with the curvature of the lips around the stem. These are crossed by firmer lines caused by the pressure of the lips to retain the stem in position. In the case of old men who have smoked a pipe for years, the effect upon the lips is very marked, not only altering the form of the lips, but one entire side of the face, causing the wrinkles which are the result of age to deepen, and instead of following the natural course of facial wrinkles, change their course so as to radiate from the part of the mouth

where the pipe is habitually carried. Furthermore, one or both lips often protrude just like the lips of people who used to suck their thumbs when children. The effects of pipe smoking upon the teeth and lower jaws are even more apparent than in the case of the lips. If any man who has smoked a pipe for a considerable length of time will take the trouble to examine his own teeth, he will find that at the point where he usually holds the stem between his teeth the latter have become worn.

The Diagnostic Value of Tuberculin.

Dillon Brown, in an article in *Pediatrics* of March 1, 1898, on the value of tuberculin as an aid to diagnosis, says on account of the difficulty in making early diagnosis in tuberculosis, every means at our command should be used, and whatever may be the ultimate decision as to the therapeutic value of tuberculin, there can be no doubt of its great diagnostic value. Young children should be given one milligramme and adults from five to ten milligrammes, the tuberculin to be diluted with salt and water.

The characteristic reaction is a rise of temperature and of pulse-rate. The local reaction is not of so much diagnostic importance. The absence of reaction is almost positive proof of the absence of tuberculosis. The presence of the reaction in four cases out of five shows the presence of tuberculosis. The tuberculin method is so simply and easily applied, it is so free from danger, and gives such valuable information in a class of cases in which knowledge is so valuable and of such practical importance, that it is surprising that its use has not become more general.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,
Microscopist to Harper Hospital, Detroit.

The Estimation of Iron in the Blood.

At the "Doctoren Collegium," Professor Jolles treated the Society to an exhaustive review of estimating iron in the blood. He exhibited a ferrometer manufactured by C. Reichert, the optician, which gave very accurate results. One drop of blood, 0.05 of a cubic centimeter = 0.78 grain, is used in the instrument, and the result obtained in a short space of time, volumetrically, without any specific gravity tables.

Hitherto it has been the custom to reckon the amount of iron in the blood from the hemoglobin formula, which Jolles considers a grave error. Hemoglobin, being a fractional constituent of the coloring matter of the blood, excludes all the other ferrous combinations present, which, on a complete analysis, is very considerable. He also finds from repeated analysis that the hemoglobin and total amount of iron present are rarely, if ever, constant. This is also true of all the other constituents of the blood. He concludes with the hope of discovering more utility in the use of the ferrometer than

with our former method of estimating the amount of hemoglobin present, and therefrom deducing the total amount of iron.

Since his last published paper on this subject, Jolles has made complete analyses of the blood of twelve healthy persons and seven diseased individuals. The total amount of iron obtained averaged 0.0443 to 0.0559 per cent. by weight, or, in a cubic centimeter by means of ferrometer, 6.2 to 8.8.

In the few pathological cases that he has examined he arrived at the same conclusions as Biernatzki and Jellinek, that the color of the blood and the presence of iron were not constant. It may be noted as interesting that in cases of severe diabetes the blood has much less coloring matter than the average, while the iron constituent is much above the normal. This is true of the urine as well as of the blood.—*Medical Press and Circular.*

Protozoa in Leucemic Blood.

Professor Loewit, in the *Centralblatt für Bakter.*, etc., Nos. 5 and 6, 1898, reports that he has found in the blood and viscera of four patients with mixed leucemia an organism belonging to the protozoa, probably to the acystosporidei. Future investigations may cause these cases to be called *hæmamœba leucemia.* The parasite apparently subsists upon the leucocytes, but may also live in the plasma. It is generally ameboid, growing and developing within the leucocyte. The presence of the parasite in the spleen during life was also demonstrated by puncturing that organ. In one case an encysted latent form of the parasite was found post-mortem with great difficulty in the blood from the heart, but the spleen showed large numbers. In a fifth case, lienal-myelogenic leucemia, the spleen and bone-marrow showed the encysted latent forms, and also in a sixth case in which the blood was not examined during life.

On the other hand, Loewit could not find any parasite in the blood of four true cases of lymphatic leucemia. Post-mortem examinations of the lymphatic glands were also negative. Loewit withholds comment on these remarkable parasites, wishing at the present only to report the finding of the same.

THERAPEUTICS.

Plasmins.

Buchner and his assistant Hahn (*Münchener Medicinische Wochenschrift*, 1897, No. 48) report some interesting experiments with the expressed cell contents of bacteria.

The bacteria are mechanically triturated with infusorial earth, the idea being here to rupture the cell walls. This being done, the mass is pressed out in a hydraulic press, at 400 to 500 atmospheres. The method was first applied to yeast cells; the expressed juice is capable of causing alcoholic fermentation, showing that this process is not necessarily a function of the living cell. Applying the same method to the bacteria, a fluid is obtained to which they give the name "Plasmin." With this plasmin experiments were made in

the production of immunity. With the choleraplasmin, obtained from the cholera germ, it was easy to immunize guinea-pigs, so that they readily withstood the subsequent injection of large doses of the living cholera germs. The immunity produced seemed to last for several months. However, they do not believe that choleraplasmin will be of any particular value in treating cholera.

The results with the plasmin from the typhoid germs are more promising, although the value cannot be determined, except in clinical experiments. Of greater interest were the experiments with the plasmin from the tubercle bacilli. (Hahn says he made these experiments six months before the publication of Koch's paper on the new tuberculin.) With this tuberculoplasmin a number of guinea-pigs were treated; the animals were inoculated with the tubercle germs, and two weeks later the treatment begun. Small, gradually increased doses of the tuberculoplasmin were given. These injections were continued for some months. Of seventeen guinea-pigs thus treated, three died before there was any possibility of a curative action; five others died in practically the same time as the control animals; four others died, but there was a lessened distribution of the tubercles, and a probability of some curative action. The five remaining animals have thus far survived the control animals from one and a half to two months. Thus about one-third of the series were saved; and in consideration of the extraordinary susceptibility of the guinea-pig to the tubercle bacillus, this may be considered as a striking result.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,
Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

Complete Atrophy of the Uterus Following Vaporization.

Baruch (*Centralblatt für Gynäkologie*, No. 5, 1898) reports a case of complete atrophy of the uterus following the application of the above method. The patient had been confined at term nearly two years previously, a subsequent fever having confined her to the bed for five weeks. Menstruation set in four and a half months later, the flow continuing for eight weeks. In order to check this hemorrhage a physician had recourse to vaporization, which resulted in promptly checking the discharge. The catamenia had never returned, however, and the patient suffered from headache, nervousness, and cardiac palpitation. Ovarian extract in tablet form had been prescribed for this, but with no effect save giving rise to severe abdominal pains. The patient applied at the clinic for the relief of these symptoms. Examination showed the uterus to be hard, very small, retroposed, and firmly fixed. The cervical canal was completely obliterated. Baruch points out that while adhesion of the uterine walls may sometimes follow curettage in puerperal cases, as noted by Fritsch and others, yet the careful use of the curette is not likely to give rise to such results since the instrument is under the operator's control. With vaporization, on the other hand, although many cases in which this method has been successfully employed have been reported, the action of the cauterizing vapor on the endometrium cannot be measured or regulated.

The Influence of the Menopause on the Nervous System.

At a recent meeting of the Paris Hospital Medical Society, M. Le Gendre remarked that while the influence of the menopause on the circulation and on the nervous system was well understood, but little attention had been paid to its effect on the renal functions. He had observed several cases which had led him to the conclusion that the change of life sometimes disordered the secretion of urine, perhaps by provoking renal congestion and diminishing the amount of urine, thus depriving the organism of one of its emunctories and leading to the retention of noxious substances that were nominally carried off in the menstrual blood. A certain degree of autointoxication might result from this retention. This was most apt to occur in women who were of a pronounced neuro-arthritic habit. The symptoms mentioned by M. Le Gendre were a reduction of the amount of urine, sometimes moderate albuminuria, often lumbar pains, nausea, vomiting, and intense headache. They could be prevented, ameliorated or altogether overcome by wet-cupping or leeching in the region of the kidneys, depleting the cervix uteri or general blood-letting, together with the use of diuretics, such as milk and theobromine.

PEDIATRICS.

UNDER THE DIRECTION OF CHARLES G. JENNINGS, M.D.,

Professor of Practise of Medicine and Clinical Diseases of Children, Detroit College of Medicine.

Two Cases of Congenital Elephantiasis.

Dr. John H. Jopson, in the March number of the *Archives of Pediatrics*, reports two cases of this unusual condition. The first, that of a child four years of age, when exhibited showed an immense swelling of both lower extremities, involving the feet and legs almost as high as the knees, the increase in size being apparently due to a thickening or infiltration, partly of the skin but mainly of the subcutaneous tissue. The swelling was firm, but pitted on prolonged pressure, and resembled a firm edema. It formed thick pads over the dorsal surfaces of the feet, and did not appear to be associated with any hypertrophy of the underlying bones. The skin was white, turning bluish-red on exposure, somewhat thickened, and of normal temperature; the nails were short and stubbed. At birth there was also an involvement of the prepuce. In the other case, a child one year old, the condition was also congenital and very similar in appearance, though less marked than in the first. The feet were not so large. The swelling did not extend much above the ankles, and the prepuce was not affected. In both cases the swelling was a little less marked in the morning. The heart sounds in both children were normal, and examination of the urine gave no signs of disease.

It is interesting to note, says the author, that in a number of cases on record there has been a disposition on the part of parents to ascribe the origin of the condition to maternal impression, as the sight during pregnancy of an elephant or of a woman with swollen legs, and in one case of a fetus preserved in a physician's office. Moncorvo attributes the enlargement to the inflamma-

tion of the lymphatics, arising in intra-uterine life from the passage of the streptococcus of Fehleisen through the placenta from mother to fetus, thus endeavoring to explain its occurrence in children whose antecedents suffered from lymphangitis or acquired elephantiasis of erysipeloid origin. The apparent dependence of the generalized form on obstructions in the blood-vascular system has already been mentioned, and some of the localized forms are probably due to the same cause.

As to therapeutic measures, massage and bandaging have been especially recommended, and the use of electricity has also been suggested.

Normal Urine in Children.

Carron de la Carriere and Monflet (*Progrès Médical*, Jan. 29) give the result of researches conducted on healthy children of eighteen months of age.

The healthy child urinates notably oftener than the adult. The specific gravity is higher; the acidity is stronger. By comparison, the child metabolizes more substance per kilo than the adult. The nitrogenous nutrition of the infantile cellule is on about the same scale as that of a man arrived at full development. The nitrogenous metabolism is more complete. With the adult only eighty-five per cent. of proteid is utilized. The child utilizes ninety per cent. of the total nitrogenous matter.

In mineral nutrition the variations are more marked, the infantile cellule being much more strongly mineralized. All the phenomena of nutrition are, in fact, incomparably more active than with the adult, the maximum being reached between five and ten years. The classical tables, dealing with the normal constitution of urine, are inapplicable to children.

Verminous Tumors in Children.

Fraelich, of Nancy (*Progrès Médical*, Jan. 29), writing on this subject, says that generally speaking intestinal worms are not considered likely to produce suppurative or perforative lesions. However, in the case of lumbricoid worms, this parasite has been so often encountered in different lesions that it has been agreed to designate these as verminous abscesses or tumors. These abscesses are generally in the abdominal parietes. They may cause an encysted peritonitis.

By what mechanism do these lumbricoids leave the intestine? Davaine attributes their migration to an old perforation and a passage to the skin. When the abscess is opened, this passage has disappeared. Leuckhart believed that these worms could, by continued pressure, perforate the intestine and then cause abscess. Others admit that perforation can only occur by pressure after a modification has occurred in the mucous lining through an enterocolitis. Others again think that the parasite elaborates a corrosive secretion which affects the mucous lining. Fraelich, after commenting on these opinions, gives his own. Intestinal worms, when numerous, produce an intestinal irritation accompanied by general symptoms (typhoidal helminthiasis).

This irritation results in congestion and perforation. It is not, then, extraordinary that lumbricoids should insinuate themselves into a mucous sphacelus and complete the perforation.

The abscesses due to threadworms do not afford opportunity for discussion, the author having a case absolutely convincing, from which he draws the following conclusions: Threadworms can produce at the circumference of the rectum, and at a distance from it, abscesses in which they multiply in great numbers. These abscesses have been produced by penetration of the inflamed mucous lining of a female laden with eggs into the rectal parietes. These she deposits in the cellular tissue. These eggs may also be conveyed by the lymphatics.

An uncleanly individual may contaminate an entire family by transporting the eggs of the parasite under his finger-nails.

Treatment of Coryza in Childhood.

Daucher (*Pediatrics*, March 1, 1898) gives the following directions for a ten-year-old child with lymphatic habits and inclination to struma:

1. Every morning, on awakening, the nasal cavities are to be thoroughly washed out with a sponge or napkin wet in a lukewarm solution of common salt.

2. After a few days this irrigation is replaced by one containing a ten- to twenty-per-cent. solution of alum. If the headache is severe, the child is to inhale every two hours the steam of a mixture containing five parts of chloroform, fifteen parts of ether, and three parts of oil of turpentine.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

The Ear Douche.

Politzer entertained the "Gesellschaft der Aerzte" with a long history of aural treatment, commencing with the literature of the early part of the present century, which was principally of a hypothetical character. Rational treatment of this organ commenced about the sixtieth year of the present century with the air-douche. This form of treatment is especially useful in all inflammatory conditions of the middle ear, either in the form of aspiration or inflation to remove or change the position of morbid product, or when combined, to stretch and articulate the tympanum and ossicles. This form of air-douche has a powerful influence on the fluids of the labyrinth. The instruments in use are the balloon and Siegle's speculum. A large amount of intelligence and practise on the part of the operator is necessary for success in the treatment, as much damage can be done by rude interference; vertigo and headache, besides rupture of some of the finer structures, can be easily produced.

When the tympanum is retracted, and the ossicles fixed, the pathological

indication is to rarefy the air and draw the organs outwards. The most favorable results are obtained by an alternation of aspiration and inflation with an elastic tympanum; if adhesion, with atrophy, has supervened, the improvement by this treatment is very slight. Aspiration is also recommended for removing pus and mucous secretions from the middle ear. Aspiration becomes useful in cases of polypi lying concealed behind the tympanum. The rarefying of air in the middle ear is found of little service in severe diseases of the labyrinth, although there are individual cases recorded where some amount of benefit has been derived. It is also a diagnostic test for extreme tension of the tympanum.

Compressed air, on the other hand, in the aural cavity, is a diagnostic test to differentiate between labyrinthine disease and the acoustic conductors, or in recognizing the position of a perforation in the tympanum. It is also of great service in the washing out of the middle ear in the removal of morbid products. Many cases of deafness are also improved by the simple application of compressed air.

As stated above, a combination of compression and extraction, or what might be better designated as massage of the ear, is beneficial in rigidity of the tympanum or articulations of the small bones. In many of these cases the benefit is not permanent but only temporary. In recent middle-ear sclerosis, as it is termed, beneficial results are usually obtained. Politzer strongly recommends this form of massage in all severe purulent forms of the middle ear where subsequent adhesions are likely to form. — *Medical Press and Circular.*

Menstruation the Cause of Acute Otitis.

F. Pierce Hoover in the *New York Medical Record* of February 26 reports the following case:

Mrs. B—— was a healthy looking woman, aged 22; brunette; weight, one hundred and twenty pounds; of medium height; married one year. Previous to that time she had never experienced trouble with her ears, but regularly each time her menses came on since her marriage she suffered agony with them. She desired to know what should be done to alleviate her great discomfort. She said she never had had womb trouble; her family physician, who had attended her from childhood, had pronounced her in perfect condition. On being informed she would be unwell the following week, I requested her to call and see me immediately she felt any unpleasant sensation in her ears.

A few days later she called again, begging me to ease her pain; it was similar to the passing of a knife through her head from one side to the other. Looking in the ears, I found the drum membranes somewhat reddened, the left one more than the right, and in its lower inferior quadrant I noticed a puffed-out area. I at once decided to perform paracentesis. Her husband held her while I punctured the drum membrane in two places with a fine Graefe knife, previously applying a four-per-cent. solution of cocaine to the drum. I was successful in letting out considerable pus, and upon inflating the ear by the Politzer method I removed much more. I recommended warm water to be syringed in the ear three times a day, after which drops of per-

oxide of hydrogen; also warm applications to the ear. Salt I prefer in a linen bag, if one has not a hot-water bag. Two days later the patient reported to me that the discharge had ceased; the sixth day the drum membrane had entirely healed.

My opinion in explanation of the condition of the ear trouble is that it was sympathetic to the menstruation—an excessive hyperemia of the ear, the result of engorgement of the blood-vessels; a vicarious menstruation, so to speak; the first case of the kind I have met with. The large majority of actions which are spoken of as vicarious bear no such relationship to the suspended activity, but are pathological phenomena.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Progress in Laryngology.

In his recent inaugural address, upon assuming the presidential chair of the British Laryngological, Rhinological and Otological Association, Dr. Dundas Grant has given a comprehensive review of recent progress in all the lines of this department (*Journal of Laryngology and Rhinology*). He paid but small tribute to transillumination. Of autoscopy of the larynx he stated that the principle introduced by Kirstein contains much essential truth, and that while it can never replace laryngoscopy, it affords, with some limitations, a distinct aid.

While there has been advance in the neurological aspect of laryngology, there still remain a certain number of laryngoplegias, especially unilateral, whose origin is shrouded in obscurity. Recently the interesting disease known as syringomyelia, or glioma of the spinal cord, has been thought to be accompanied in many cases with affections of the upper gray tracts, and we may have ocular, laryngeal, pharyngeal and other paralyses. The speaker mentioned having seen two cases recently which he believed answered the description of alcoholic neuritis of the recurrent laryngeal nerve.

The speaker laid much stress upon the influence of disease of the nose in producing various forms of laryngitis. In simple nasal obstruction, the mere obligation to breathe through the mouth is of itself sufficient to determine a congestive condition of the laryngeal mucous membrane. In suppurative nasal disease we have the inhalation of pus microbes producing maceration, proliferation, and in some cases atrophy of the mucous membrane. He believed suitable and properly conducted vocal exercises and respiratory drill of the utmost value in the therapeutics of congestion of the larynx, and he has found of great value the exercises recommended by Dr. H. Curtis in his recent work on "Voice Building and Tone Placing." In concluding that portion of his address dealing with laryngology, he placed a high value upon antitoxin in the treatment of diphtheria, advised caution in its use, and the avoidance of any undue enthusiasm calculated to bring serum therapy into ridicule. He was strangely silent about intubation.

Congenital Nasal Cleft, with Operation.

Kredel, of Hanover (*Münchener Medicinische Wochenschrift*), has reported a case in a child eleven weeks old, in which he found the two halves of the nose separated by a wide cleft, the cleft being filled with a half-round soft tumor. Besides this formation there was a single harelip and a defect of the left forearm.

The nasal operation was performed at two sittings. At the first the tumor was extirpated, and the cleft in the lips closed. It was then discovered that the cartilaginous septum was divided in two halves, each of which constituted the inner border of the nostril. At the second operation the two halves of the nose were sewed together so that a part of the divided septum went to form the alar portion of the nostrils. The point of the nose was formed from a flap of the covering of the tumor which had been left *in situ* for that purpose. The result was satisfactory.

Microscopic examination showed that the tumor contained skin, fat tissue, striated muscle, bone, besides lymph and epithelial cysts. It was therefore concluded that the condition represented an incomplete arrested double malformation.

The author advances the theory that the etiological factor in the causation of the nasal cleft was a pressure working from without inward, rather than a disturbance directed from within outward. He attributed the cleft in the lip, and the forearm defect, to disturbance caused by amniotic bands.

Multiple Papillomata of Larynx.

Dr. T. C. Railton reports two interesting cases of this laryngeal affection (*British Medical Journal*, No. 1938), in which a complete cure was effected by tracheotomy alone. In one case, a girl of three years, the tracheotomy was done on February 23, 1894, on account of serious attacks of dyspnea. A week after operation the usual silver tube was removed and a soft rubber tube employed. This tube, removed and replaced three times a week, was worn continuously for three years and nine months. The tube was then permanently removed and tracheal wound allowed to heal. The larynx was found to be in a perfectly healthy condition.

In the second case a similar course was pursued, and the larynx found perfectly healthy. After the tube had been worn two years there was not, after a lapse of eighteen months, the slightest indication of return of the disease.

In conclusion the writer says: "It was determined at the beginning of the treatment of these cases to limit it to tracheotomy, the more radical operations of thyrotomy or endo-laryngeal extirpation having proved so very unsatisfactory in children, even at the hands of the most skilful operators. It would appear that the spontaneous atrophy of the papillomata depends upon the removal of all causes of irritation in breathing and more particularly in coughing. I do not attach much importance to the effect of the arsenic administered in the first case; in the second none was given."

THE MEDICAL AGE

VOL. XVI. DETROIT, MAY 10, 1898. No. 9.

ORIGINAL CONTRIBUTIONS.

JAMES SYME, THE SURGEON—A BRIEF SKETCH OF HIS PROFESSIONAL LIFE AND LABORS.

BY HIS FORMER PUPIL, DONALD MACLEAN, M.D., LL.D.,
Ex-President American Medical Association, etc.

(*Continued from page 236.*)

Enough has been said, I hope, to recall to the reader's mind something of the magnificent service to surgery and to suffering humanity rendered by Syme's heroic determination to have this great surgical question, once for all, settled upon the immovable foundation of truth and sound scientific principles.

Since Syme's day it is true that a considerable number of modifications in the treatment of stricture of the urethra have been suggested. Some of these have been beneficial, others very questionable; but the fact remains that to Syme's teachings and example we are indebted for all that is *fundamental and stable* in this department of practical surgery.

In asserting Syme's claims in this regard nothing could be further from the writer's intention than the belittling of the labors and results achieved by such distinguished coworkers as Sir Henry Thomson, Mr. Reginald Harrison, and others in Great Britain; Mercier and others in France; Gonley Vanburen, Keys Gross and others in the United States. Having enjoyed the privilege of personal association with most of those just named, I am able to say that, without exception, each one of them fully and freely acknowledged their indebtedness to Syme as the leader and presiding genius of this particular section of the surgical vineyard.

No less striking and important is Syme's contribution to the subject of "Diseases of the Rectum." The preface to the third edition of that masterly monograph must suffice to set forth here the aim and scope of its author.

PREFACE TO THE THIRD EDITION.

The first edition of this book was written sixteen years ago, in order to rescue diseases of the rectum from the hands of the rapacious "specialist," by establishing their treatment on sound principles of surgical practise, by pointing out the best modes of procedure already known, and by suggesting other means of remedy, for those derangements that seemed to require them. Most particularly I endeavored to correct the improper method of operating for Fistula in Ano, then

practised and inculcated throughout Great Britain, by drawing attention to the observation of M. Ribes respecting the position of the internal orifice—the necessity of including it in the incision—and the inexpediency of cutting beyond this point. I also combated the error which referred the origin of Fistula to ulceration of the mucous lining of the bowel; and endeavored to show that when the operation was performed upon correct principles, instead of being, as formerly, painful, bloody, and uncertain, requiring a protracted course of dressing, and subjecting the patient to prolonged confinement, it caused hardly any pain or bleeding, required no subsequent dressing, or confinement beyond a few days, and rarely if ever failed in proving effectual. In regard to Internal Hemorrhoids, I explained how the ligature could be employed with safety and efficiency, so as beyond all question of expediency to supersede the dangerous and uncertain methods of treatment by caustics, acids, red-hot irons, and the knife. I also called attention to the injurious effects of a secondary kind, produced by a continued discharge of blood from this source—protested against the mischievous fallacy of representing such a drain as salutary—and showed that the most alarming symptoms simulating cerebral or cardiac disease could be safely remedied by its suppression. The frequent and distressing infirmity of "Prolapsus" was shown to depend almost always on hemorrhoidal disease, and therefore to be easily and effectually remediable, instead of, as generally supposed, only admitting the imperfect palliation afforded by mechanical support. Polypus of the Rectum was discriminated into its three different conditions of Fibrous, Vascular, and Malignant, to each of which the appropriate treatment was assigned. Strictures of the Rectum, whether simple or malignant, were shown to be limited, with hardly any exception, to the distance of little more than two inches from the orifice, so that the proceedings of specialists, who still continue to thrust bougies far up the gut, must proceed from ignorance, or motives even less creditable. The Spasmodic Stricture was described, and explained to admit of no relief except by division of the external or subcutaneous sphincter; and that most intolerable of ailments, Fissure of the Anus, instead of requiring complete division of the whole sphincter, with consequent dressing and confinement proportioned to the severity of this operation, was shown to be remediable easily and certainly by an incision hardly extending beyond the mucous membrane.

In the present edition I have little to add or alter, and, therefore, as the numerous treatises that have appeared since the first one was published, to say nothing of the compendiums which have of late years so industriously gathered together all that is good, bad, and indifferent of surgical principles, probably contain most of the practical information it was originally my object to convey, it may be thought unnecessary for me to publish any further on the subject. But as my booksellers inform me that the last edition is entirely exhausted, and as some readers may prefer obtaining information from its original source to picking it up at second-hand, I beg to offer this third edition, in the hope that it will meet with a no less indulgent reception than its predecessors have experienced.

Without question Mr. Syme's influence on this previously discredited and neglected field of surgical effort inaugurated a complete revolution, which men like Curling, Allington, Kelsey and many others have industriously and successfully carried forward to the highest degree of practical perfection.

In 1829 Professor Syme reported three cases, at least, of successful resection of the elbow-joint for tubercular degeneration, and from that time on he omitted no opportunity of teaching and demonstrating the advantages of this method of saving useful limbs. In this instance also the fact is that he met with much determined opposition, and what appears to us now as an unreasonable amount of adverse criticism. On the other hand he had the benefit of loyal and independent support from various quarters, and more especially from the eminent authorities of Continental Europe.

Syme did not claim absolute originality for his resection practise and teachings. In 1768 Mr. White of Manchester reported a highly successful case of resection of the shoulder-joint in a lad of fourteen. This case is very fully noted and discussed by Syme (*vide* Syme's Surgical Works, Maclean, pages 658–662; J. B. Lippincott & Co., Philadelphia). "My reasons," says Professor Syme, "for giving such particular attention to this case, are, first,

because it led the way to all that has been done in this department of surgery; and secondly, because erroneous opinions regarding its real nature, arising from the superficial consideration of it, have rendered the result so difficult of belief as to throw an air of absurdity over the whole subject. In France, Moreau the elder performed the operation successfully in 1786, and the army surgeons, particularly Barons Percy and Larrey, frequently resorted to it on account of recent gunshot wounds, instead of removing the limb."

While thus doing ample justice to his predecessors, Syme, without fear or hesitation, devoted all his ability and energy to securing the promotion of this class of surgical procedure to its deserved position in professional favor, and to once for all establish it upon surgical and pathological principles, which he justly hoped would prove to be unassailable. The completeness of the work in this respect afforded him and his disciples the utmost gratification.

The individual instances in which Syme modified, improved and enlarged the field of practical surgery, thereby earning the grateful appreciation of his *confrères* in the profession everywhere as well as the applause of an intelligent laity, are too numerous to admit of detailed rehearsal or review here. Truly, his record as a practitioner and teacher of surgery is a superb one when compared with the results accomplished by the great masters from the dawn of surgery down to his own day.

The crowning feature of his professional career would seem, on careful reflection, to consist in the unparalleled stimulus which his life and character furnished for the adoption of sound principles, and the application to the theory and practise of surgery of the best discoveries and deductions of abstract science. His aim and ambition seems to have been to "*Prove all things and hold fast that which is good.*" Not content with meeting and coping successfully with any and every emergency in actual practise, he was constantly animated by an irresistible ambition to deduce from each individual experience rules of practise which he industriously formulated into great general principles for the future guidance and inspiration of his brethren as well as himself. Few men have attained to his facility of clear, concise and definite expression, either as a speaker or as a writer. In the course of his long and remarkable professional career it is true that Syme at various times became involved in controversy. It is hardly within the scope of this paper to enter upon a detailed account of those contests. It is perhaps sufficient to say that while wielding a more than usually trenchant pen, and although he was a master of all the arts of the controversialist, including sarcasm, irony, and ridicule, he never under any circumstances forgot for one moment what he owed to himself as a gentleman or to his readers, friendly or otherwise, or to his opponent.

A complete collection of his controversial writings would make a large and no doubt interesting volume. Not only so, but my belief is that such a collection, if fairly and impartially considered, could not fail to redound eloquently to Mr. Syme's honor; for although it is possible that he may at times have been led astray by his strong prejudices, and committed errors of judgment as regards men and things, the fact cannot be denied that under all circumstances he was animated by the very purest and noblest intentions. Moreover, it is a remarkable fact that in the great majority of his contro-

versies and correspondences it finally transpired that the delicate duty of retraction and apology fell to be performed by his adversary and not by him. All through his long and energetic career he seems to have consistently kept the sententious wisdom of old Polonius before his mind's eye: "Beware of entrance to a quarrel, but being in so bear thyself that the oppressor may beware of thee."

The particular time in which Syme lived, and the particularly favorable conditions by which he was surrounded, combined with his native ability and great force of character, unquestionably conspired to make him the striking figure in the history of surgery, which on all hands he has been freely acknowledged to be. It would, however, be unfair to ignore his cotemporaries and the services which they were active in rendering to the cause of surgery in one and another of its rapidly developing departments.

Is it not the simple truth that right beside him, his colleague, J. Y. Simpson, the real father of the *practise* of anesthesia, was laboring with a degree of energy almost unequaled in his determination to utilize his great discovery to the best advantage of every department of surgery?

Gynecology as we know it was by Simpson's labors and genius gradually developing into the marvelously beautiful and beneficent science and art which it has since become.

Lineally descended from Simpson we have Thomas Keith, Lawson Tait, and in fact a whole army of brave, original and successful workers, through whose efforts abdominal surgery, with all that that implies, has been placed upon a solid and safe foundation.

Other surgical specialties rapidly sprang into existence under the stimulating suggestiveness of anesthetics. Bowman, Toynbee, Jonathan Hutchinson, Walker, Argyle Robertson, and others, energetically developed the important fields of surgery known as ophthalmology, otology, etc. In their efforts in this direction they were ably assisted by Helmholtz and others in Europe, as well as by active and successful *confrères* on this side of the Atlantic. The ingenious and brilliant labors of Marion Sims, Bozeman, Emmet, Battey and others in America constitute a particularly valuable page in the history of modern surgery, collateral with, but for the most part independent of, Syme's domain of activity. If his cautious and conservative tendencies rendered him skeptical and to some degree unfavorably disposed to some of these innovations, if we pause for a moment and take into consideration the facts of the case we can hardly feel justified in censuring him. Professor Syme at times took pleasure in giving utterance to magnificent prophecies as to the future of his beloved art, and its potentialities. I am persuaded that if he could revisit now the scenes of his life's work and triumphs, he would be lost in amazement at the state of matters he would see, and he would in all sincerity declare that his most sanguine hopes and predictions had fallen immeasurably short of the actual facts of the history of surgery since the termination of his life and labors.

During the latter years of Syme's career the science of histology, guided and directed by the master-hand of Virchow, furnished the practical surgeon vastly improved methods of diagnosis. Not only so, but by its means a new

and infinitely more rational knowledge was acquired in regard to the ultimate structure and functions of the tissues of the body, both in health and disease. By this means former theories of the essential nature of morbid processes were found to be untenable and were abandoned.

The whole science and art of therapeutics was revolutionized not from any influence which resulted from the insane vagaries of such illogical maniacs as Hahnemann and his followers, but as the result of calm and deliberate efforts and reflections directed to the unraveling of Nature's methods and her ways of repairing injuries and restoring health.

It must be admitted that to the faithful and industrious use of the microscope, in the hands of a vast army of enthusiastic and brilliant observers, much of the solid progress which surgery has made since Syme's day is to be attributed.

A complete inventory of Syme's contributions to surgical and scientific literature would entail demands upon the columns of this journal which I dare not make. His first publication, of which we have reliable information, although outside the domain of surgery seems to deserve special mention here. I quote from Dr. Patterson's Memorials of Syme's Life:

> In March, 1818 (he was born in November, 1799), he announced to the world in a short communication which he sent to the *Annals of Philosophy* the discovery of a new and cheap solvent for caoutchouc distilled from coal tar. "As coal tar," says he, "bears a strong resemblance to petroleum, it occurred to me that by distilling it a fluid might be procured which, like naphtha, would have the property of dissolving caoutchouc, and that in this way I would procure a solvent free from the objections to which the known solvents of that remarkable substance are all more or less liable. After many trials, I completely succeeded, and was enabled to carry into effect several of the applications for which a fluid state of india-rubber had seemed so desirable. My friends talked of a patent, but being then about to commence the study of a profession with which considerations of trade in those days did not seem to be consistent, I sent the following letter to the editor of a scientific journal, resident in Glasgow:
>
> "SIR—I take the liberty of sending you an account of a valuable substance, which may be obtained from coal tar. If you think it worthy of being made public, you will oblige me by inserting it in your *Annals of Philosophy*."
>
> This letter was transmitted in the beginning of March and did not appear till August, although the journal was published monthly. A patent was soon after procured by Mr. Mackintosh, a manufacturer in Glasgow, for the making of water-proof cloth by means of caoutchouc dissolved in coal tar naphtha. Mr. Mackintosh made an immense fortune out of his patent.

Mr. Syme, speaking in 1847, says: "For my own part I gained little credit and *no profit* by the discovery, except the confidence which results from successfully struggling with a difficulty, and encouragement in endeavoring to accomplish other objects of utility." From the publication of this valuable paper down to the date of his death, fifty-two years later, hardly a week passed without something of merit issuing from his pen.

To describe fully Syme's personal and professional character and history would afford his humble and most grateful friend and admirer, the writer of this sketch of his life's work, inexpressible gratification, but that has been done by abler hands, and I dare not venture to trespass at this time further upon the patience of my readers or the generosity of the publisher of this journal. I cannot, however, conclude this paper without quoting the following concluding lines from Dr. Patterson's interesting and valuable "Memoirs:" "His connec-

tion with the University of Edinburgh was always to him a matter of pride; and when the history of it in those days comes to be fully written, probably no higher names will be found on its pages than those of Syme and his contemporaries, Allison, Christison, Goodsir, and Simpson."

Nevertheless the *monumentum acre perennius* to our great surgical teacher will be his unrivaled surgical achievements, in the performance of which he displayed all the great elements of character so sententiously expressed by his old and attached friend, Dr. John Brown, when inscribing his "Locke and Sydenham" to his old master: "*Verax, capax, perspicax, sagax, efficax, tenax.*"

THE CONSERVATIVE TREATMENT OF CLUBFOOT.

BY A. FRITZ MAASS, M.D., DETROIT, MICH.

To compare the advantages and disadvantages of different methods devised for the cure of clubfoot, a short description of them may be convenient.

The first method attempts to correct the malformation slowly without cutting. The foot is forced to grow into normal position by passive movements or bandages or apparatus either constantly worn or frequently applied. At the same time the muscles are developed by electricity, massage, and use.

A second variety begins with the tenotomy of the tendon Achillis and the plantar aponeurosis, both subcutaneously. After this, the foot is forcibly bent into dorsal flexion and abduction, as much as can be obtained by hand power. A solid bandage preserves the result, and bending is repeated first in two to three weeks, and later in longer intervals. Between these different operations, which always are performed in narcosis, the patient walks about, except during the first month of treatment.

In a third kind of procedure, devised by Phelps, all soft parts which might offer resistance are divided in one sitting—the tendon Achillis and the posterior ligaments subcutaneously; the others, as skin, plantar aponeurosis, tendons of flexor muscles, bone ligaments and joint capsule, in open incision carried over the scaphoid bone. The foot can be brought with comparatively little force in hyperdorsal flexion and abduction, where it is kept by a solid dressing until the gaping wound has healed.

The fourth variety embraces the different bone operations, as osteotomy, extirpation of wedge-shaped bone pieces, removal of whole bones, mainly the astragalus, combined with more or less division of soft tissues. These are at present not very much in use and will not be further spoken of.

The advantages and disadvantages of different methods do not depend exclusively on their rapid or slow and more or less complete shape-correcting ability. In weighing them the usefulness of the foot must not be neglected. If a patient treated with No. 1 can finally walk four hours at a time, one treated with No. 2 three hours, and one with No. 3 two hours, without getting tired or suffering pain in his feet, No. 1 is better than Nos. 2 and 3, and No. 2 better than No. 3, no matter how soon the result was obtained. This cannot be learned from a plaster-of-Paris cast or a photograph, or even from looking at the original foot standing before us with the highest possible plastic regu-

larity. It is as much an impossibility as to judge of a horse's gait by looking at him in the stable. Therefore the complete report of successfully treated clubfoot cases must contain a time record of the patient's ability to stand, to walk, or to ride a wheel, before and after treatment. By doing so the true improvement obtained in a single case with a certain method can be shown far more completely than by the mere appearance of the foot; but no proof is given whether the same patient with another method might not have gained a more useful organ. This can only be shown by statistics, a task which offers many difficulties. The compared cases must be of the same severity before the treatment, the cure must be commenced at the same age, and the patients must be of the same constitution, must live under circumstances equally favorable for bodily development, and they must do the same amount of exercise after a cure has been accomplished. Otherwise in every statistic room for doubt and opposition will be left.

But is there any necessity for statistics so difficult to be collected? Why should a foot completely corrected by one method not be as useful as a foot also completely corrected by some other method? The reasons that one treatment promises better ultimate results than another will be understood by studying the effects produced in dividing ligaments and tendons.

Let us contemplate first the ligaments. If they are cut on the inner and volar side and heal, the foot kept in dorsal flexion and abduction, the wide spaces must fill in with scar tissue. This new-formed tissue, as every surgeon knows, is less powerful in resisting traction and pressure than the original one. The deficit in power of the cut in comparison with the normal ligaments must make itself felt more in an occupation which compels walking and standing than in a sedentary calling. Also slender persons certainly will suffer less than those who acquire in later life a fat and heavy body. But the relative weakness of important ligaments may be corrected by the muscles. That this is possible we see frequently in flat feet. An individual afflicted with them, having at the same time weak muscles of the lower leg, is subjected to the typical flatfoot pain, and another with well developed muscles is able to undergo any strain without being troubled at all. So we might feel at rest about the cut ligaments and look hopefully to the development of the flexor muscles. Unfortunately these are affected by division of the second organs mentioned above—the tendons. The strings by which the muscles transmit their power are elongated after the operation, and consequently the effect of the latter reduced to some extent. At the same time the longer tendon narrows the range of contraction and so robs the contractile substance partly of its chance to grow by activity. Further, the unfavorable influence of division is augmented by the adhesions which form more or less extensively and transmit the power to places where it has less effect, or none at all, in moving the foot.

And now let the union be incomplete, a danger which is greater in open incision than in subcutaneous tenotomy, where a canal is left to guide the new-forming tissue, how much muscular power can be made useful in such instances? I do not see how any at all. Though this most unfavorable result be exceedingly rare, it cannot be neglected entirely.

Quite different are the results to be expected in slowly correcting the disfiguration without the use of the knife. Here not only the tendons have a chance for enlargement, but also the body of the muscles, and the opportunity most probably will be largely used by the latter. The contractile substance gains in mass and power and remains attached to a tendon uninterrupted by an adherent scar and gliding in a smooth sheath up to the point of its original insertion.

Look at the invariably poor development of the flexor muscles in clubfoot cases. A lower leg resembling more a stick than a normal human limb is as much a typical feature with those patients as the deformed foot itself. There is no muscular substance to be wasted, but only a very limited supply to be saved and developed.

Such are the reasons to justify extreme conservatism in the treatment of clubfoot. Statistics with the requirements mentioned above may invalidate them. If they should have been published somewhere, I beg the author's pardon for overlooking them.

The standard treatment for clubfoot should not rely upon the knife, or at least should only make a limited use of it. That the resistance of a certain organ can only be overcome by incision should never be decided at the first attempt to correct the faulty position. What does not give way to-day very often will do so after the foot has been kept and used for a time in a partly normal position by means of a solid bandage.

A surgeon who masters the more radical procedures, especially the Phelps method, may safely undertake to be conservative. He can explain to his patient why he does so, and that he is able to effect a complete and rapid cure at any time it should become necessary or convenient. A few failures in our first attempts need not discourage us. The conservative method demands experience as well as does the radical. The surgeon who has practised the slow treatment of clubfoot for years has also had failures. It does not justify us, either, to discard the whole method if a few unsuccessful cases of a fellow surgeon fall into our hands. He may have made the same mistake as a radical surgeon is liable to, giving his method an unlimited indication—the one in difficult, the other in milder, cases.

From my personal experience I must say that the majority of club footed patients can be cured by the second method, which bears the name of Koenig. The objection that it is not applicable in poor patients does not hold. With children time is not a very important factor, and hospital treatment is not absolutely necessary. If it should be preferred, free hospitals or such with free and skilled medical attendants are available in most of the larger cities. The absence of means does not prevent the poor child from having his clubfoot transformed into an organ as useful as possible under the circumstances. The poorer the person the more he has to rely upon the strength of his limbs.

THE RELATION OF THE PHYSICIAN TO THE PATENT MEDICINE VENDER.*

BY D. MILTON GREEN, M.D.,

Professor of Ophthalmology and Otology, Grand Rapids Medical College.

The question of the relation of the physician to the patent medicine vender is one which should engage the serious consideration of every legitimate practitioner.

That I may be understood at the very beginning, I will first define what I mean by patent medicine venders. There are two classes: First, those who use the druggists as tools, and push their sealed packages upon the market through them; and second, those so-called manufacturing pharmacists and so-called chemical companies who use the physicians for the same purpose, viz., those who advertise through the physicians.

Through the first class the pharmacist has been reduced to a patent medicine dealer, and the pharmacy turned into a patent medicine shop; while the physician, through the efforts and push of the second class, is fast becoming a patent medicine pedler.

I would not be understood as saying that none of the many thousands of preparations which are being advertised and sampled to physicians are more or less valuable, but that very few of them are; and yet every day we are given from one to a half-dozen samples of different mixtures or preparations with "literature" enough for a week's reading, and almost every mail brings its "personal letters," reprints or extracts from papers written by physicians, lauding some preparation; or printed testimonials from physicians of all grades, many of them from men of national reputation. They read like patent medicine advertisements of the first class, and are accompanied by a long list of diseases which are "cured" by said medicines, which embraces nearly all of the diseases to which human flesh is heir. We are by each chemical company or manufacturing chemist admonished to be sure and specify their particular preparation, and to be sure that their signature or trade-mark is on each bottle, so that our patient may get a sure and speedy cure, and the physician's good name may not be endangered by failure.

"The formula is on each bottle," so that the patient may know what he is taking, and *even the doctor* may know what he is prescribing, *provided always* that the formula on the bottle really represents what it contains.

Medical journals, the best in the land, devote their best pages to advertising these patent medicines, and in one of the most notable of these can be found advertised a mixture which has been advertised in the newspapers for years, and sold out of drug stores as a patent or proprietary medicine, and bought by the laity as such. They now openly make an excuse for the name of this "medicine," inasmuch as it does not indicate the ingredients which it contains. At the bottom of the page it says "it is never sold in bulk, but in original packages only, which retail at 50 cents per bottle. Physicians wishing

* Read before the Grand Rapids Academy of Medicine.

to prescribe this remedy may prevent substitutes by having their patients note the name of the manufacturer on the package."

This is only one of a dozen advertisements of equally notorious patent or proprietary medicines which I have clipped from medical journals, and hold in my hand, but as you have all read them I will spare you the pain of reading them again.

Are the doctors to blame for all this? Go to the prescription files, and this question will be answered in the affirmative by seeing that nearly every physician prescribes more or less of these so-called "preparations" or "compounds," many of them in original packages because they are sold in no other way.

Is it necessary or expedient for them to do so? and if so, why should physicians spend years of their lives in the study of medicine when there are "original packages" for every form of disease? Why not educate students entirely from this great mass of advertising matter? They do not need to make an exact diagnosis, for most of these preparations are shotgun prescriptions, which reach such a wide range of diseases that they could hardly fail to hit the mark. The physician need not make a better diagnosis in that kind of practise than the person who goes to the drug store and buys a patent medicine for what he supposes his disease to be, or the druggist who prescribes it for him.

This kind of prescribing disgraces a noble profession and adds to the burden of our patients, for when they consult a physician, and pay him a dollar, and then go and pay a dollar for some so-called pharmaceutical preparation, they are many times burdened; and again, we stand in our light by so doing, for the patient could go to a homeopathic physician, and he would prescribe and put up a bottle of little sugar pills, all for a dollar. Do the patients recover? I believe they do as often after taking the sugar pills as they do after taking a bottle of the patent preparation.

Where is the honored physician of years gone by who prescribed for his patient what he believed, from his knowledge of materia medica, to be a proper mixture, and had it compounded by the now almost extinct pharmacist?

Certainly there are some preparations which have been made more palatable by the skill of the pharmacist, medicines which are efficient, and which we may prescribe, feeling fairly certain that they contain what is claimed for them. These mixtures have for many years been put up by reliable manufacturing pharmacists who have proved themselves friends to the medical profession and to scientific medicine.

What good is there in thousands of these preparations but to enrich the chemical company at the expense of our patients, and to the detriment and disgrace of our noble profession? I believe in medicine and regular medicine, as I have said before, but I believe in no medicine at all rather than too much, especially those of the composition of which we have no knowledge except the labels on the bottles put there by patent medicine pushers.

There are some doctors who try almost every medicine they see advertised or with which they are sampled. Many of them are ready to give testimonials of their wonderful effects, if their patients happen to survive. Some, I am

led to believe, are willing to testify if their names can be printed on circulars and sent broadcast over the country. Patent medicine men, ever alert, and ready to use the name of one physician to influence others, print these testimonials.

Is it not time that physicians should heed the warning which they have in the condition of the druggist, and be more careful about prescribing some one's tablets or mixtures? Otherwise they will eventually be obliged to buy a large satchel and stock up with much vaunted "cure-alls" and thereby become patent medicine pedlers pure and simple. Their patients will simply go to the drug store and send their neighbors there to buy the cure-all or some other patent medicine which their physician has prescribed.

When these patent medicine men of the second class wish to publish an almanac, and go into the patent medicine business of the first class, what a lot of illustrious names of medical men will appear therein. Some so-called medical or chemical companies have done just this thing, and after advertising to and through physicians put their product on the market as a patent medicine.

It is estimated, says the *Journal of the American Medical Association*, that exclusive of medical missionaries who are sent to uncivilized lands there is only one qualified physician to every two or three millions of the peoples of Asia and Darker Africa. The following are some of the heathen conditions and practises mentioned by missionaries in their reports: "Eighty families with smallpox in one street in a Burmese city and no physician attending them." "A prescription given by a Chinese physician with the remark, 'This contains so many ingredients that it will cure anything,' and among the ingredients were numbered a centipede, a scorpion, a horned toad, and a beetle." "A Chinese girl, on entering a foreign hospital, reported having taken by prescription 200 boiled spiders, besides serpents' eggs." "Bricks piled on a broken leg to keep down swelling." "Babies stuck all over with red-hot needles till hardly an inch of unpunctured skin remained." "A man coming for help to missionaries in Africa, dragging a broken limb, no surgeon to set it." "Women in India, in their direst need, driven out of the house and left alone or given over to the care of ignorant, superstitious women of the lower caste."

According to a French writer named Petrie, whose conclusions are quoted in the *Medical News*, twenty per cent. of cannibals eat the dead in order to glorify them; nineteen per cent. eat great warriors in order that they may inherit their courage, and eat dead children in order to renew their youth; ten per cent. partake of their near relatives from religious motives, either in connection with initiatory rites or to glorify deities, and five per cent. feast for hatred in order to avenge themselves upon their enemies. Those who devour human flesh because of famine are reckoned as eighteen per cent. In short, deducting all these, there remains only a proportion of twenty-four per cent. who partake of human flesh because they prefer it to other means of alimentation.

IN MEDICAL CONCLAVE.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

At the regular meeting held April 4, 1898, Dr. J. O. Cobb, of the Marine Hospital Service, read the paper of the evening, entitled "Early Diagnosis and Treatment of Tubercle of Lungs." He said that to clear up some of the mistakes in diagnosis, and to urge upon the members of this society renewed energy in working out the details of this frightful disease, was his apology for offering this paper on a well worn subject.

The disease may be divided into three stages. The so called first stage includes the period from infection to the date of expectoration. It is rarely that the disease is detected in this stage, and only by men working continuously with tuberculosis. This stage may be still further subdivided, making the first stage from date of infection to date of cough indicated by a zigzag daily temperature, running from normal to points above, or to subnormal points and back again to normal. If the disease can be diagnosed at this stage much good can be done to the patient, and also means taken to prevent the spread of the disease to his family. I want here to emphasize the necessity for thorough physical examination on the appearance of certain well defined symptoms. One of the most important is the facies. There is a peculiar look to these patients, hard to describe but often easy to discern. Another distinctive change is in the timbre and pitch of the voice. Fever, loss of appetite, pain on pressure over chest wall, are warning signals. Auscultation furnishes us with one of our surest aids to diagnosis. If one will learn to look for the first lesion in the pleura he will be surprised how often the disease can be located with the stethoscope or phonendoscope. The author believes that most tubercular infections first involve the pleura, and the first pathological condition that can be found is a pleuritis without effusion. On listening over the affected area one will there hear, if there is pleurisy without adhesion, what he designates as the "waterfall sound," or the "conch-shell sound." This sound may be produced by the roughened pleural surfaces sliding over each other, or the nodules of tubercles just under the pulmonary layer in the lung tissue making the pleural surfaces uneven. If the temperature chart, with morning and evening notings, shows a normal temperature in the morning with evening excursions above or below for a continuous period, then it is imperative that all other diseases be excluded and the disease recognized at once. Holmes reports in a series of examinations that leucocytosis is not present in the early stage, though Cabot says that in the fever of the first stage there may be leucocytosis. As a rule leucocytosis is never present in tuberculosis until there is mixed infection. There are two other aids to diagnosis in this stage, and they are of doubtful utility. The author refers to the use of tuberculin, and the injection of the patient's blood into guinea-pigs. If tuberculin causes a rise of temperature and a leucocytosis, then one is certainly safe in saying the disease is tuberculosis. Weigert has shown that the bacillus

does penetrate the blood-vessels and circulates freely in the blood. It is absolutely impossible to make an early diagnosis with the microscope, for the bacillus is at this time imprisoned and has not broken free into the air spaces of the lungs.

The belief that the disease is nearly always introduced by the inhalation of dry sputum is the one that has held the most prominent place in the minds of the profession. The author believes that a large number of our cases are infected through the mouth, nose, tonsils, and intestinal tract. Recent experiments have been made by Kinyoun in connection with railway coaches to ascertain if such vehicles were the carriers of disease, especially the tubercle bacillus. The investigation as continued up to last June had given but negative results. It is unlikely that out of the great number examined there were no tuberculous persons. He simply mentions this to show that even the dried sputum is not so easily disintegrated and disseminated. We know that epidemics of miliary tuberculosis originate from the use of tuberculous milk (Tuberculous Poultry as Food, *vide British Medical Journal*, March 5, 1898). In the *Journal of the American Medical Association* of March 19, 1898, Dr. R. R. Andrews, dental surgeon, quotes from an article of Stark on carious teeth and tuberculous cervical glands. A case illustrative of infection in this way was exhibited by the Doctor. The connection between tubercle of the lung and tuberculous carious teeth was explained by a description of the anatomy of the pleura.

Treatment.—Any remarks on the medicinal treatment of the disease must necessarily be brief, because it is not possible to offer one positive or scientific suggestion. The cure for tuberculosis has not yet been discovered. That the disease gets well by medical aid there is undoubted proof. The author claims to be one of the pioneers in the administration of beechwood creosote, having used this drug for the last twelve years. The present drug treatment, he believes, can be summed up in the one word "failure," unless combined with tremendous dosage of the most favorable climate. The writer was optimistic enough to believe that before long a serum of product from the tubercle germ would be discovered that would not only cure the disease, but prevent its implantation in the body. The idea prevailing among the laity that tuberculosis is hereditary acts as a powerful opposing factor in the application of preventive measures.

That the disease is transmitted directly to the child through the placental circulation he does not deny. Wolff has shown that the placenta is often infected in guinea-pigs. Moffucci injected tubercle bacilli into the jugular vein of pregnant rabbits with the result that the bacillus appeared within four hours after inoculation of the mother. The organs of a fetus from a mother made tuberculous contained living and virulent bacilli within forty-eight hours after jugular inoculation. Rabbits born of tuberculous mothers did not show any tubercles up to six months. After this time tubercles could be found in the liver and lungs, but the bacilli could not be found in them. Ernst says: "The general belief seems to be that bacteria themselves cannot pass through a healthy placenta to the fetus, but that bacterial products do so." He further states "that an occasional transmission of the tuberculous bacilli from mother

to fetus seems to be demonstrated by a monograph of Birch-Hirschfield." A child born with tuberculosis has not the disease, but rather has succumbed to infection, and such infections manifest themselves in early infancy as acute hydrocephalus, hypertrophy of the liver, and disease of the bones. It seems to the author that the claims of hereditary transmission of the disease are untenable. Many have abandoned the idea, and now take the ground that the child born of tuberculous parents inherits a tubercular predisposition. Even if that were so, the fact nevertheless remains that it is our duty to prevent the introduction of the tubercle bacillus into that particular person's body. There will never be the slightest danger of such a person dying from tuberculosis if we keep him from contagion.

The writer here presented a number of cases illustrative of the disease in the early stages.

Drs. Miner, Flinterman and other members of the Association engaged in the discussion following the reading of the paper.

WAYNE COUNTY MEDICAL SOCIETY.

At the regular meeting of this society on April 14, Dr. J. A. Weitz presented a paper on "Diagnostic Data in Cerebral Lesions," and reported several cases illustrating the chief points brought out in his paper. One case, the subject of which was exhibited to the Society, was especially interesting. The history is briefly as follows: Mr. ——, aged forty-seven, fell from a wagon, striking on his head. He resumed work a few days later, but was some time afterward compelled to quit on account of an agonizing pain in his head and some difficulty involving the thumb of the left hand. Later he became unconscious, and finally sank into coma, with left hemiplegia. Because of the thumb symptom the Doctor advised trephining on the right side of the cranium over the thumb center. This was done; a small cyst was found and successfully removed. The patient made a complete recovery.

Dr. R. H. Honner presented an interesting pathological specimen. It was the greatly enlarged and gangrenous appendix of a lady operated on a few hours before. She had suffered but little pain. There had been only slight tenderness on pressure over the region of the appendix, and the temperature and pulse had been raised but little above normal.

The regular meeting, which was held on April 21, was devoted to the discussion of "Whooping-cough in Adults and Herpes Preputialis." Most of the members present had seen cases of whooping-cough in adults—one case referred to occurring in a patient forty years of age. It was generally conceded that this disease will not only attack persons of all ages, but that one attack does not necessarily exempt a person from a second attack. The disease usually runs a milder course than in children, and the patient is not so prone to the complications which so often are the cause of the many fatalities in the young.

The discussion on the subject of herpes preputialis brought out the interesting points that the disease is not always easily diagnosed from chancroid, and that the treatment of it is most rapid by the use of dry applications.

DETROIT ACADEMY OF MEDICINE.

At the regular meeting of the Academy, held April 26 at Dr. Wyman's office, Dr. Daniel La Ferte read a paper entitled "Bow-legs and Knock-knee." The subject was taken up in such a way as to make it interesting and instructive to the general practitioner. The early symptoms of rachitis were carefully explained; the restlessness at night, the dry rough skin, the alternating constipation and diarrhea should always cause a suspicion and put the physician on his guard. As a result of the rachitic condition the bones of the body are soft and yielding; hence the deformities of knock-knee and bow-legs easily arise. These conditions are largely the results of improper feeding of the infants, particularly the prolonged use of breast milk.

In operating on these deformities the tissues are cut through to the bone with a scalpel, the periosteum raised by a curved elevator devised by the Doctor, and then a very small saw is used on the bone until the shaft easily breaks by manipulation. After the bones are straightened a plaster dressing is applied, and when removed, the cure is complete. No apparatus of any kind is used later.

In the discussion the fact was brought out that the deformities are more common in the negro and Italian races. Also it was suggested that many of the cases are cured spontaneously when the proper foods and salts of lime for medicine are given. The use of bow-leg iron and supports for the gradual correction of the troubles is inadvisable after the fifth or sixth year.

THERE is a Jew, a native of Litsk, Russia, living in the East End of London, who has fasted for twenty years, his sole daily diet during that time consisting of six pints of milk, three pints of beer, and a half pound of Demerara sugar. His name is Morris Fox. He is an excellent Talmudical scholar, and in spite of his frugal meals, he is the most healthy, intelligent and wide-awake person in his quarter. He is now over forty. At the age of seventeen, it appears, he caught some lingering fever, which shattered his constitution and entirely destroyed his digestive organs. He took many kinds of treatment from many physicians, until his stomach became inured to all medicine. At the Kieff Hospital they vainly tried to cure him by sponging and electrolysis; at Vienna his physicians included the well known Drs. Albert and Nothnagel. His treatment at Carlsbad was a failure; then he traveled to Königsberg, when the physicians decided that he must live on sugar, milk, and beer. He adopted their prescription, and soon regained normal health. For twenty years no solid food has passed his mouth.

IT HAS been ascertained by careful medical observations that certain families in St. Ourn, a village in France, enjoy absolute immunity from tuberculosis. They are "autochthonous" gardeners, of excellent habits, who intermarry among themselves, and keep apart from the immigrant laborers. These latter suffer terribly from the disease. It is considered probable that hygienic conditions are not the sole cause of the difference, but that, by a kind of natural selection, a race immune from tuberculosis has been developed.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

YELLOW FEVER AND THE TROOPS.

Among the tokens of "unpreparedness" which arrest the attention of those who are interested from the medical standpoint in the present campaign, is that of the lack of some satisfactory means of securing immunity to yellow fever. Now that our troops are faced with the imminent dangers of this disease, it is much to be lamented that Dr. Sanarelli or some other intrepid inquirer did not approach the yellow fever problem a few years earlier. Sanarelli's investigations have led him to definite conclusions, but unfortunately sufficient time has not elapsed to permit of the practical confirmation and elaboration of his doctrines.

Sanarelli has concluded that a protective serum can be produced which will act in accordance with generally accepted principles of immunization. Great difficulty in the production of this serum arises, however, from the exceptional trouble manifested by animals in their toleration of the virus. Horses required an intensive treatment of fourteen months before a preventive and curative serum could be generally produced. The serum acted effectively against the microbes only, and not against their toxins, so that early administration is a condition of the success of the serum.

Early in the present year Dr. Sanarelli had obtained a fair supply of serum from two horses. This has been utilized in the treatment of twenty-two yellow fever cases in Rio de Janeiro. Our clinical knowledge of the serum is based upon the experience these cases have afforded. In those cases which had advanced to the fourth day, the results were not particularly encouraging. In three cases which had not advanced beyond the third day, energetic serum treatment resulted in recovery, and a marked lowering of the febrile temperature attended each injection.

Last February Sanarelli adopted an intensive treatment of the disease from the beginning. He injected large quantities of the serum, and out of fourteen cases so treated he recorded ten recoveries. His total results comprise twenty-two cases with five deaths. In epidemics of yellow fever of moderate intensity a mortality of fifty per cent. is not exceptional, so that the statistical indications of Sanarelli's experiments are decidedly favorable. The prophylactic power of the serum having been tested only on a small scale, no very certain predictions can be made concerning it.

It is possible that to our troops in Cuba the bacillus icteroidis may prove to be as formidable an ally of Spain as any that our brave soldiers are likely to encounter. This being so, it is to be hoped that immediate and ample means will be provided to discover a method of prophylaxis and cure that shall be efficacious in this grave epidemical disease.

EDITORIAL NOTES.

Autointoxication in Cyclists.

The bicycle is a means of swelling the ranks of amateur athletes. Many such athletes will undoubtedly suffer from the results of overexertion. The most common ailment of this kind is an autointoxication, the result of poisonous products engendered by active tissue changes. Experience has shown that a considerable amount of physical and visceral disturbance may result from prolonged exercise, and yet nothing in the nature of extreme fatigue has warned the cyclist of his condition. Owing to exaggerated excretion through the skin, the tubular apparatus of the kidneys may become clogged. A nervous exaltation follows in the wake of the toxemia so caused. The rational treatment of this condition is very simple. A hot bath assists elimination and reduces the excitability of the muscular system. The first meal after a ride should be light. Alcoholic beverages should be avoided and a mild purgative will clear the system. Overdoing is almost certainly indicated by troubled slumbers.

Medical Societies as Post-graduate Institutions.

The meetings of the medical societies are often neither entertaining nor instructive. Their capacity for producing work which possesses no originality is so conspicuous a characteristic that their entry into any new fields of usefulness should give rise to feelings of gratitude. The practise of many Eastern societies, of having some medical or surgical expert deliver a clinical lecture to them, is one which is being widely adopted. To make the medical society do the work of a post-graduate course is a desirable and practical end to attain. If this custom be generally followed, medical societies will be made more helpful to the profession, and will be relieved of much of their tedium and ineffectiveness.

The Routine Treatment of Syphilis.

The terrible amount of venereal disease in the British Army in India is directing attention to the necessity of instituting a routine treatment of syphilis that shall be universally applicable. Out of 70,642 British soldiers serving in India, no fewer than 31,953, or forty-five per cent., had suffered from either primary or secondary syphilis since enlistment, and these men are daily returning to civil life after their short terms of service. It is thought that by instituting intramuscular injections of mercurials the treatment of these cases can be continued for a long period of time, though the victim be not actually invalided, which seems now to be the obstacle to his continued medical supervision.

ITEMS AND NOTES.

PHILADELPHIA has two cases of smallpox.

THE LATE Mr. Ernest Hart left an estate valued at $60,000.

AMERICAN ORTHOPEDIC ASSOCIATION meets at Boston, Mass., May 17, 18, and 19, 1898.

MOSUL, a town in Turkey in Asia, has a population of nearly 150,000 and only one physician.

THE University of Pennsylvania has raised the standard for graduation in its dental department.

KOLISKO has succeeded Hoffman in the chair of legal medicine in the University of Vienna.

GRUBER, of ear fame, will soon retire from his chair at Vienna, and Politzer will take both chairs.

THE London Hospital, situated in the Whitechapel district, with a capacity for 1000 patients, is the largest in London.

ACCORDING to the *Boston Herald*, a woman at No Name Pond, Me., has recently given birth to her twenty-fifth son.

CONSUL-GENERAL LEE says that Cuba back from the seashore is no more unhealthful in climate than our Southern States.

IN THE death of Dr. Rudolph Leuckart, Professor of Zoology at Leipsic, Germany has lost an authority on animal parasites.

AT THE next meeting of the Belgian Royal Society of Public Medicine a special discussion on infantile syphilis will be held.

THE New Jersey Senate passed a bill appropriating $15,000 for the establishment of a village for epileptics. It has been signed by the Governor.

THE annual meeting of the American Gastro-enterological Association was held in Washington on May 3 under the presidency of Dr. D. D. Stewart.

A BILL has been introduced in the Ohio Legislature prohibiting insurance companies from issuing policies upon the lives of children under fifteen years of age.

CONSTANTINOPLE is beginning to complain of the dispensary evil. There are two dispensaries in that city which treated 2299 persons in 1896 and 6062 in 1897.

A BILL has been introduced into the New York Senate for pensioning medical officers who have been in the service of the State, caring for the insane, for a period of fifteen years and upwards.

DR. A. C. BERNAYS, of St. Louis, is fighting a suit of $60,000 brought against him by a man, the photograph of whose child he reproduced in a medical journal in connection with the case.

ACCORDING to *The Lancet*, Sir William Turner, of Edinburgh, has been elected president of the General Medical Council of Great Britain and Ireland, in place of the late Sir Richard Turain, M.D.

THE REPLY of a clairvoyant to a gentleman who had sent a lock of his hair to facilitate a correct diagnosis of his disease was: "You are suffering from an ovarian tumor, and must be operated upon immediately."

A CENSUS of London paupers, says the London *Times*, taken on the last day of the first week of March in the years named, shows that the number of paupers was: in 1898, 105,882; in 1897, 105,694; in 1895, 137,298.

AN international congress of medical women is to meet in London this year. This is remarkable, considering the fact that it is only about fifty years since the fair sex broke into that profession in search of a career and fortune.

MYERS (*Penn. Med. Jour.*, March) reports a case of expulsion of a mature fetus with the membranes intact. The mother had a week before received a fall, at that time evidently causing the separation of the placenta and the death of the child.

IT IS now Maryland that seeks to forbid the marriage of the insane and people with chronic ailments. A bill is under consideration in that State that calls for the examination of every candidate for matrimony by a board of competent physicians.

A MEASURE is just being discussed before the German Reichstag, whose purpose is the prevention of the spread of venereal disease. Any one found guilty of having communicated a venereal disease to another shall be punishable by fine and imprisonment.

THE *Progrès Médical* cites the case of a Jersey woman who gave birth to a daughter at two o'clock in the evening of December 31, 1897, and to another one about two o'clock in the morning of January 1, 1898, thus making the twins born in different years.

THE Paris Académie des Sciences not only awarded the La Caze prize of 10,000 francs to Roentgen, but also bestowed the same amount upon Professor Lenard, of Heidelberg, whose work on the cathode ray stimulated Roentgen to further research, and led to his great discovery.

AN EXHAUSTIVE study of the vital statistics of the region surrounding Davos in the Engadine in Switzerland has given only negative results, from which it appears that the population living in and around tuberculosis resorts are not exposed to greater danger of contagion than others elsewhere.

The Secretary of the Iowa State Board of Health was lately called upon to report upon the case of a leper living near Graetinger in that State. He advised the Legislature that there was no special need for their interference, but that there was much greater need for legislation for the suppression of tuberculosis than for that of leprosy.

Raoul Pictet in 1895 exposed himself, excepting his head, to a very low temperature in a refrigerator. There was no sensation as of chill from cold, but a tickling sensation was felt both on the exterior and interior of the body. There was also a marked feeling of hunger. He says that for the first time in six years he was really able to enjoy food.

It has been reported that the army medical authorities have prepared a large supply of yellow fever antitoxin, and that all the unacclimated troops sent to Havana and other parts of Cuba, in case of war with Spain, will be inoculated by way of prophylaxis, and also that a thorough test of the curative properties of the serum will be made in all cases originating in the island.

During the past winter the laboratory workers of the New York Board of Health had in hand experiments with an antirabietic serum, and their results have been such that the Board has added the Pasteurian treatment of hydrophobia to its list. The poor who chance to fall victims to this rare disease, rare at least in New York, will have the proffer of this treatment free of charge.

The Norwegian Parliament has unanimously decided to appoint Dr. Nansen to the chair of Zoology in the University of Christiania. The duties of the chair will, it is understood, be just what the distinguished incumbent chooses to make them, and they are not likely to interfere with any further explorations of the Arctic and Antarctic regions which he may be disposed to undertake.

Sir Joseph Tholazan, physician to the late Shah of Persia, died not long ago, and it was currently reported that he was poisoned. Having been the trusted confidant of Nasr-Ed-Din for over thirty years, he was acquainted with many court secrets, and his removal was desired on this account by the new government. His predecessor at the Persian court is stated to have been done away with in the same manner.

Moscow has a hospital large enough to hold 7000 persons. It was founded in 1764, and at present takes in children at the rate of forty a day, or about 15,000 a year. There are fifty-six physicians and about 900 nurses. During the first century of its existence the hospital received and brought up no fewer than 468,560 children. On his retreat from Moscow in 1812 Napoleon gave special orders that this building should be spared.

The air within the Mammoth Cave of Kentucky has a uniform temperature, summer and winter, of 54° F. The cave may be said to breathe twice a year — inhaling during the winter and exhaling during the summer. This

breathing of the cave, and the purity of the air and its freedom from germs, are among the most interesting problems to be studied. By what process the air in the cave becomes sterilized remains to be determined.

Mrs. Hughes, the wife of the chief resident physician of one of the Philadelphia hospitals, has for the past two months been busily engaged in teaching a choir of forty insane persons to sing. She has stated that it is not at all uncommon for the programme to be partly disturbed by a number of the choir falling into an epileptic fit. It is said that so far the music has had a beneficial effect on both the violent patients and those afflicted with melancholia.

Marriage, according to Dr. Schwartz, of Berlin, is the most important factor in longevity. Of every 200 persons who reach the age of forty years, 125 are married and 75 unmarried. At sixty years the proportions are 48 to 22; at seventy years, 27 to 11; and at ninety years, 9 to 3. Fifty centenarians had all been married. The Doctor asserts that the rate of mortality for husbands and wives between the ages of thirty and forty-five years is sixteen per cent., while that for unmarried persons is twenty-eight per cent.

The Turkish Government having asked for a professor of medicine from Germany, the Emperor has granted the necessary authorization to Dr. Rieder, of the University of Bonn. The newly-appointed professor is to receive 30,000 francs ($6000) a year. He will also have an assistant, who is likewise a German. The latter is to have a salary of 15,000 francs ($3000) a year. Dr. Rieder is charged with the reorganization of the medical school. Besides their services at the school these gentlemen will also inspect the military hospitals of the city.

Baron Larrey, whom Napoleon I called the "most virtuous man I have ever known," at the age of twenty-six years joined the army of the Rhine, and was the physician of the so-called "flying ambulance" for twenty-two years. He was present in sixty great battles—Waterloo was one—and four hundred engagements. He performed numberless operations, and it is said that he did two hundred amputations in one day. He operated often on the field—once took off the leg of a high officer in a driving snow-storm, while two others held a cloak over his patient. His name stands only below that of Ambroise Paré, his great prototype.

It is a remarkable fact, says an English paper, that the very means of life may be the cause of death. A whale may be drowned, and now a scientist tells us that there seems to be a peculiar fatality among fishes. After reaching a certain depth of water, the swimming bladders become distended by the pressure of air, and the fish literally explode. Too much of one's native element may bring about most disastrous consequences. A sudden change of air from one density to another may cause the rupture of a blood-vessel, and a too sudden change of temperature has produced like results. Extremes of all sorts are not only very injurious, but are likely to prove fatal, especially to organisms that are not in the enjoyment of robust health.

NEW PUBLICATIONS.

DISEASES OF WOMEN.

Those who are familiar with Dr. Webster's previous excellent works, "Researches in Female Pelvic Anatomy" and "Ectopic Pregnancy," will take up this, his latest, book with the expectation of finding something more than ordinary text-book literature; and they will not be disappointed. The author's long practical training as assistant to one of the foremost teachers of Europe, in Edinburgh University, and his carefully conducted studies in female pelvic anatomy and pathology continued over a period of years, have admirably fitted him for undertaking the present work, and have furnished a rich fund of material from which to draw such as few are privileged to command. We are therefore not only given a clear and systematic description of the various disorders of the female pelvic and abdominal organs and their treatment, but the pathology of the various affections is well discussed from the standpoint of personal investigation and comparison, and the bearing of heredity and embryological influences in the production of given conditions are carefully and judiciously considered. The treatment advocated is thoroughly modern, and withal conservative. The book contains much that is new and original, and in these matters marks a distinct advance over works of similar nature.

The illustrations, mostly original, are in the main very commendable. The publishers' imprint is sufficient guarantee of the excellence of the mechanical construction of the book. W. P. M.

Diseases of Women. A Text-book for Students and Practitioners. By J. C. Webster, B.A., M.D. (Edin.), F.R.C.P. Ed., Demonstrator of Gynecology, M'Gill University; Assistant Gynecologist, Royal Victoria Hospital, Montreal, etc., etc. Illustrated with 241 figures; pp. 688. Cloth; price, $3.50. Edinburgh and London: Young J. Pentland. New York: The MacMillan Company.

THE BUBONIC PLAGUE.

The author of this report on the Bubonic Plague is one of the municipal health office staff of Bombay. He speaks as one having authority, and his compilation is one of great interest. He gives the details of the treatment of 939 cases treated at the Municipal Hospital. He prefaces this with a thoroughly scientific description of the clinical manifestations of the plague. The mortality of this grave disease is indicated by the author's figures, showing in his 939 cases a mortality of 68S. The cases are roughly divided into those treated by injection and those in which the bubo was not injected. In the former the mortality rate was sixty-eight and in the latter seventy-five. Serum therapy was tried on only a limited scale. Fifteen cases were injected by Professor Haffkine with serum of his invention; nine were cured and six died, being a mortality rate of forty per cent. Yersin's serum was tried in three cases; one died and two recovered. The serum of Professor Lustig, of Florence, gave the most satisfactory results. Six cases were treated and all recovered. The usual routine treatment was continued in most of these cases submitted to serum therapy. Appended to the author's volume are a series of charts giving the thermometric phenomena of the disease.

Report on Bubonic Plague. Being a Report Based upon Observations on 939 Cases of Bubonic Plague Treated at the Municipal Hospital for Infectious Diseases at Bombay. By Khan Bahadur N. H. Choksy, Extra Assistant Health Officer, Bombay Municipality. Bombay: Times of India Steam Press.

THERAPEUTICS OF INFANCY AND CHILDHOOD.

A second edition of Professor Jacobi's book on the Therapeutics of Infancy and Childhood will be afforded a welcome reception from those to whom his work has already appealed by reason of its scientific and practical merits. The author very completely traverses the field of children's diseases, and a concise and practical treatise on Pediatrics is the outcome of his labors. The scheme of the work includes a preliminary chapter of great value on the feeding of sick children. This is followed by one on general therapeutics and one on the treatment of the newly-born. The full category of diseases is then carefully considered. The author's reputation as a writer on pediatrics will be sufficient assurance that this part of his work is signalized by the highest scientific attainment.

Therapeutics of Infancy and Childhood. By A. Jacobi, M.D., Clinical Professor of the Diseases of Children in the College of Physicians and Surgeons, New York. Second Edition. Price, $3.00. Philadelphia: J. B. Lippincott & Co., 1898.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Miniature Hammers and Suture of the Bile Ducts.

W. S. Halstead, in the April number of the *Johns Hopkins Hospital Bulletin*, in presenting his methods of suturing the bile ducts after operation upon them with the aid of the miniature hammer devised by himself, says it is not necessary to dissect the duct from its bed, but the wall of the duct should be clearly exposed at the site selected for incision. Before incising the duct, two presection stitches, to serve as retractors, should be taken. After removal of stone, and after thoroughly searching the duct with a probe, the retractor threads should be drawn apart and a hammer of proper size introduced. Mattress stitches are then applied, one over the heel, behind the handle of the hammer, and others in front of the very delicate handle. As to the advantages of this method Halstead says:

1. The duct to be sutured can be drawn towards the incision in the anterior abdominal wall and within easy reach of the operator; it can also be manipulated nicely by the hammer.

2. The duct, whether normal or thickened and dilated, is gently expanded by the hammer; hence the stitches can be taken with great accuracy and without fear of including the opposite wall or of occluding the lumen of the duct.

3. The operation is a very clean one because the hammer blocks the duct, and thus prevents the escape of its contents and the contents of the gall-bladder.

4. With the hammer, wounds of thin normal ducts can be easily and almost infallibly sutured, and hence the surgeon may, if he chooses, fearlessly operate upon the common duct as soon as the obstruction takes place.

5. The suturing of the thickened and dilated ducts is also greatly facilitated by the employment of the hammer.

Galvano-cautery in Treatment of Neoplasms of the Skin and Mucous Membranes.

Dr. Alex. J. C. Skene, in the *American Medical and Surgical Bulletin*, reports several cases of neoplasms treated in this manner. One of the cases was a nævus situated between the eyes of a child five months old. The skin covering the elevation was of a bluish-red, half an inch across and three-fourths of an inch vertical. The tumor disappeared on pressure, showing that the enlarged vessels were mostly in the cellular tissue. It grew very rapidly. Electrolysis was employed, and now no trace of the nævus can be seen. Another case was that of an epithelioma on the lower lip of a lady, which was removed by the galvano-cautery. Still a third case was that of a nævus pilosus or hairy papilloma on the cheek. This was removed by cautery,

and there was only a small speck of scarred tissue which was barely visible on close inspection.

In comparing the results obtained in this way, says the author, with those obtained with caustics, such as nitro-chromic acid, the advantages are markedly apparent in that these leave an ugly scar that does not disappear completely, and remains a glaring defect for a long time to mar the beauty of the patient. The same may be said with reference to the use of pastes. They also leave very ugly scars compared with that which is left after the use of the cautery. This is one of the most important advantages of this way of operating, and it is only one, for the method has advantages in every particular over all other known methods.

Forcible Reduction in Pott's Disease.

Hoffer, of Wurzburg, in the *Deutsche Medicinische Wochenschrift* of January 20, 1898, says in regard to his experience, which has been limited to a few cases, with Calot's method of treating antero-posterior spinal curvature, that it has been productive of excellent results. Hoffer thinks that Calot's methods need no modification, and therefore urges that in order to give the method a thorough and satisfactory test to follow the rules laid down by Calot. In cases of very long duration, or those that resist a moderate amount of force, as well as exaggerated ones, success is not likely. Skiagraphic views will reveal the amount of space between the vertebræ, which if the treatment be successful will eventually be filled with osseous tissue. Only two deaths have occurred in the more than two hundred cases reported by Calot.

MEDICINE.

The Tongue as a Clinical Guide in Disease.

A recent number of the *Indian Medical Recorder* gives the following in regard to the tongue:

A broad, pallid tongue, with a loaded base, says atony, and refers you to a want of action of the entire viscera below.

The remedial agents would be cathartics and tonics, especially those mild but effectual in character.

A shrunken tongue, pinched in expression, indicates functional inactivity of digestion, and requires great care in choice of food as well as quantity. In this condition of tongue we have atony also.

It is the tongue of advanced fevers, inflammations of the mucous membranes, and want of assimilation, hence great caution both of remedies and food. Here we must not use cathartics. Mild aperients may be carefully used.

A contracted, pointed tongue, with dryness and dark fur, is the usual tongue of typhoid fever and other low grades of fever, when all thinking minds would use great care in the treatment and food.

The dryness or moisture of the tongue denotes the extent of the disease of the intestines, and will point us in that direction.

A fissured tongue points to the kidneys, either an inflammation or something wrong with secretion.

Yellow coatings are usually associated with morbid liver and want of biliary secretions, and would indicate mild hepatics and tonics.

Raised papillæ, bright red, denote irritation of ganglionic nerves and irritation of stomach, especially the mucous coating. Shows exhaustion; no digestion, and needs rest; nux vomica twenty drops, and the food to be warm and taken in small quantities. Bismuth and pepsin after food.

Broad, thick tongue, papillæ not visible, but looking raw, denotes a septic condition of blood, and favors typhoid fever. Indicates, if deep red, sulphuric acid; if pale, sulphite soda. Liquid food, sipped warm, in small quantities.

Deep, dark-red tongue and dark coating indicates septic condition of blood.

Shades of dark brown and black denote typhoid condition, or septic conditions.

Pale, dirty fur on tongue denotes acidity, and a septic condition of system; indicates sulphite of soda; but if membranes are deep red, sulphuric acid will be admissible, because it would show an alkaline condition of blood.

Contracted, pointed, cannot hold still, and drawn to one side of mouth, denotes a wrong with the nerves, and perhaps the brain. Requires great care and study of condition.

Dry tongue always denotes feverishness or inflammatory condition, a wrong with the nerve centers of ganglia.

Thick tongue, and curved edges upward, denotes atony of the nerve centers of ganglia, requiring stimulants, nux vomica or strychnine and quinine.

Pointed, narrow tongue is the tongue of sluggish condition of digestion and assimilation, and congestion, especially of the base of brain. Restlessness and constant change of position are usually present.

Sleep and Sleeplessness.

Dr. Robert A. Fleming recently lectured on sleep to the Edinburgh Health Society. He said that an adult should have seven to eight hours' sleep, but the amount depended on the kind of work done during the waking hours. Manual labor meant the necessity for more sleep, and a feeble intellect needed much more sleep than a highly educated one. A child with its developing brain and mind needed much more sleep than an adult. A newly-born infant should sleep twenty hours at least out of the twenty-four; a child of one to two years, sixteen hours; a child of four, twelve hours; and a child of ten, ten hours. At the age when a child becomes a man or woman rather more sleep was needed than for an adult. Old people required much less sleep, unless the mind failed, and then they needed a child's allowance. The bed should be fairly hard; a hair mattress was probably best; no feather bed should even be allowed to exist for a day, unless in an antiquarian museum, and should never be slept on; it is far too airless and hot.

The temperature of the bedroom should be 55° to 60°. The hour for retir-

ing to rest was a somewhat difficult and delicate matter to settle. The beauty sleep supposed to be obtainable before midnight was a fiction. So long as we got our eight hours of sleep it matters not at what hour we sought our couch, and the misery of rising much before daybreak on a winter morning was hardly compensated for by the joys of bed much before twelve. In summer early rising was in every sense a pleasure; in winter it was a penance. Possibly the very commonest phenomenon associated with sleeplessness was cold feet. This was readily understood. Cold feet meant blood in excess in brain and internal organs, and, therefore, no sleep was possible till the feet were warm. A hot bottle was in no sense of the word a luxury—in such a case it was a necessity, and one which should always be considered. For the full-blooded, a hot bath or hot foot-bath before bed might procure sleep; for the too bloodless, a stimulant; and for the sleepless brain worker some manual labor in the garden, or plenty of exercise, walking, cycling, etc., so as to tire the muscles, would greatly aid sleep. In those who suffer from insomnia tea and coffee should never be taken at night, as they stimulated the brain; and the utmost pains should be taken to avoid using the brain for the consideration of difficult problems just before going to bed.—*Indian Lancet.*

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,
Microscopist to Harper Hospital, Detroit.

Immunity from the Clinical Standpoint.

Dr. W. Gillman Thompson (*Medical Record*, Jan. 8, 1898), in a paper on "Immunity; Recent Theories Viewed from the Clinical Standpoint," says:

The two dominant views of the present day as to the nature and cause of immunity are: (1) The influence of the phagocytes, either as devourers of germs or producers of substances which destroy germs or their products; (2) the influence of antitoxins, either as chemical antagonists, acting by neutralization of toxins, or as physiological antagonists, acting by stimulating the cells of the body to increased resistance. After an analysis of the various theories, the author reaches the following conclusions:

1. The phagocytic action of the leucocytes in combating infection is of but little importance, and is mainly concerned in the removal of waste products rather than the devouring of live bacteria.

2. The leucocytes probably secrete substances which are both inimical to living bacteria and antagonistic to their toxins. The antagonism may be through digestion of the toxins and through counteracting the irritant effect of the toxins upon the general tissues of the body.

3. The antitoxins of the serum, whether artificially injected or developed within the body, do not act by chemical neutralization of the toxins, but through stimulation to greater resistance of either the leucocytes or the tissues, or both.

4. The blood itself, neither through its leucocytes nor through its serum,

is capable of producing the phenomena of permanent immunity. To a limited extent only can it be relied upon for the prohibition of toxic symptoms.

5. It remains for the tissues to offer the final combat against the toxins and to develop a more or less permanent resistance to them, which is transmitted to successive cell generations as more or less permanent immunity. To this effort they may be incited by either toxins or antitoxins in addition to the exercise of the inherent property of living protoplasm to resent irritation of any sort.

It is probable that natural immunity does not differ in kind from acquired immunity, which has been perpetuated for an unusually long period through succeeding generations.

Post-typhoid Abscess.

Drs. Takaki and Werner, in *Zeitschrift für Hygiene* of March 15, 1898, report an abscess forming in the glands of Bartholine during convalescence from typhoid fever. It is remarkable that the bacteriological examination of the pus revealed a pure culture of genuine typhoid bacilli. Bacteriologists, as a rule, do not accept that tyyhoid bacilli can alone produce pus, but require the assistance of the staphylococci and streptococci. The authors believe they can exclude the common pyogenic micro-organisms as factors. The abscess formed under observation in twenty-four hours, too short a time for the disappearance of the micrococci necessary to form four cubic centimeters of pus; and the finding of only typhoid bacilli in the pus excludes the presence of pyogenic cocci in the abscess walls. How the bacilli found their way into these glands can be accounted for by their entering from without, in the same way as gonococci many times do; but the possibility of metastasis through the blood circulation must not be overlooked.

THERAPEUTICS.

Pleurisy Treated by Iodine.

A member of the Académie de Médecine, of Paris, recently reported at a meeting of that society the successful treatment of a number of cases of pleuritic effusion by injecting iodine into the cavity. After drawing off about two-thirds of the primary liquid with the aspirator, he injected the following mixture: Tincture iodine 2 drachms, iodide of potassium 20 grains, water 10 ounces; this he withdrew by the same instrument five minutes later. No accident occurred, and the patients recovered rapidly.

Kymotherapy.

Letulle and Ribard (*Progrès Médical*, March 26, 1898) reported to the Société Médicale des Hôpitaux their method of using extreme cold to overcome the anorexia of phthisis. Their method is to apply a bag containing carbonic acid gas to the epigastric and hepatic regions. The skin is protected

by a layer of cotton-wool. The temperature of solid carbonic acid is about .80° C. Their method is founded upon the experiments of Pictet, and their idea is that the organism is spurred to increased nutritive changes in order to overcome the cooling process. Thus old materials are burned up and the organism is placed in favorable circumstances for the absorption of new materials. There follows as a result of this an increase in the digestive vigor.

Treatment of Syphilis with the Serum of Mercurialized Animals.

Tarnowsky and Jacoobeff (*Wiener Medizinische Blätter*, No. 7, 1898) have concluded, after a thorough trial of the treatment of syphilis by injections of serum of mercurialized animals, that these are of no use, and moreover that they give rise to fever, usually accompanied by a purpuric eruption, pains in the limbs, albuminuria, maxillary adenitis, and great loss of weight.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,
Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

Experimental Researches into Surgical Shock in Abdominal and Genito-Urinary Operations.

From a series of experimental researches upon animals conducted in the physiological laboratory of the Cleveland College of Physicians and Surgeons, Crile (*Am. Gyn. and Obstet. Jour.*, March, 1898) arrives at conclusions which will prove of much interest to surgeons in general and abdominal surgeons in particular. The paper is not one permitting of comprehensive abstracting, but the observations regarding the treatment of the above condition are as follows: Regarding the prevention of shock, he says, the less the insult to the tissues, the less was the shock; the less the hemorrhage, the lighter the shock. Not only the amount but the method of the administration of the anesthetic was found to be important. The horizontal postures, or the head inclined, were most favorable. Mechanical interference with the large venous trunks was found necessary to avoid. The abdominal cavity is shock-producing in something like a direct ratio of the distance from the pelvis; the region of the diaphragm, especially the pyloric region, is probably greatest, and the floor of the pelvis least, shock-producing.

Preliminary administration of alcohol did not seem to favorably affect the results. The same may be said of morphine. Atropine, on the whole, seemed to diminish the amount of shock; but on account of taking off thereby the vagal control from the heart the blood-pressure curve was very irregular. Cocaine, hypodermically, to a very great extent prevents vasomotor splanchnic changes; and the general blood-pressure in the cocaine experiments was almost as well sustained under like procedures as in the experiments in which the splanchnic arteries or the aorta had been closed previous to the splanchnic experiment.

As to immediate treatment:

1. Aqueous extract of suprarenal capsules of sheep was tested. There was an immediate and marked rise in blood-pressure, but the pressure was not at all sustained; the fall was as rapid as the rise.

2. Strychnine sulphate caused a marked but later rise in all the pressures, and the rise was well sustained.

3. Artificial respiration is of undoubted importance, and we have in our collection many records of the remarkable effect of artificial respiration on the vasomotor and the heart action and hence upon the blood-pressure. The blood is insufficiently supplied with oxygen in shock. An increased supply of oxygen is urgently demanded.

4. Intravenous infusion of normal saline solution causes in the first instance an increase in the venous pressure in the vena cava, and, consequently, the output of the heart is at once increased, the amplitude of the strokes lengthened; the chambers being full of blood, contractions, in consequence, become more forcible and the blood-pressure rises after several beats after beginning of saline flow. The peripheral venous, the vena cava, portal, peripheral cephalic and central pressures all rise together. The rise of the vena cava and peripheral venous appears first, and last and after the lapse of some time the portal would rise, but rose proportionately higher than the other pressures. If a small quantity is injected, the rise will likely not be sustained. Injections of quantities of fifty cubic centimeters at intervals as needed serve the purpose well. Quantities up to twice the amount of blood calculated to be in the animal have been given before the pressure was sustained. After this considerable injection the wounds everywhere began oozing and the tissues became fairly wet. Hemorrhages that had been insignificant recurred vigorously. Various temperatures ranging from 18° to 53° C. were employed and within a reasonable range; the effect seemed to be the same. The effect is apparently wholly mechanical. Hemorrhage, after injection of considerable saline, shows little tendency to spontaneous arrest or clotting. The combination of small and frequently repeated hypodermic injections of strychnine, together with saline injections, makes a most effectual combination. Strychnine alone causes acceleration of the heart with shorter beats. Saline alone causes a more forcible but a long, sweeping beat. The combination of both produces a more sustained effect and a more nearly normal beat. Small doses more frequently repeated, producing an effect similar to the steady increment of a continuously flowing stream of saline, have appeared to produce the best results.

Vulvo-vaginitis in Children.

Malcolm Storer (*Boston Medical and Surgical Journal*, Jan. 20, 1898), while admitting that occasionally the above condition may result from lowered vitality, as in poorly nourished children amid unsanitary surroundings, from traumatism (rarely), as in attempted rape, violent masturbation, blows on the genitals, etc., or from simple infection by a diplococcus resembling the gonococcus, but which does not respond to Gram's stain, the diplococcus colpitis catarrhalis of Heiman, concludes from a large experience in the management of this class of cases that by far the largest number are due

to gonorrheal infection pure and simple, and insists that even among the better class of patients the probability of this source should always be suspected until bacteriological examination of the discharges demonstrates the absence of the specific organism. Sources of infection are so numerous that no station in life can be considered as exempt.

In all these cases the possible danger of tubal infection by extension of the inflammation through the uterine cavity must not be lost sight of, and as Sanger has suggested, the resulting salpingitis, which may remain dormant until the awakening of the sexual system at puberty, may thus furnish the etiological moment for some of the otherwise inexplicable cases of pelvic disease in virgins.

In the matter of treatment, Storer finds that the best results are obtained by the use of graduated solutions of permanganate of potash as a douche. At the start only the mildest wash should be used, one-half grain to the pint (1:16,000), twice a day, an increase in strength being made every third day. After about the ninth day, when the strength of the solution is approximately 1:4000, it may be increased by one grain daily, but it has not been found necessary or desirable to go beyond 1:500. In giving the douche the necessary apparatus consists of a No. 10 soft rubber catheter, and a fountain syringe. The child is held in the lap of the assistant, in the lithotomy position, and the catheter, well lubricated with soap, carefully introduced. The application of cocaine to the parts (five per cent.) may be necessary for the first few times before the catheter can be inserted. In order to protect the anus from the irritating effects of the permanganate solution, it should be anointed with vaselin before the douche is given. The vagina is then washed out with a fairly hot solution, the syringe bag being held rather low, and the external parts afterward bathed with hot boric acid lotion. If after four weeks of this treatment gonococci are still present in the discharges, two drachms of a two-per-cent. solution of silver nitrate should be injected into the vagina three times a week, alternating with a fairly strong permanganate wash. Under this treatment cures may be expected to result in from six to eight weeks. While the above method is fairly satisfactory, Storer is of the opinion that the ideal germicide for these cases will be found in the new soluble silver salt argonin.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

The Present Position of the Operative Treatment of Myopia.

The present position of the operative treatment of myopia was a subject under discussion by the Ophthalmological Section of the International Congress at Moscow. Fukala (Vienna) introduced the subject by quoting from 2000 cases already reported in the literature. He himself had operated upon 168 cases. His method of operation was free division of the capsule and lens. After three to five days, or later, extraction follows.

Eyes which are, in spite of correction for myopia, no longer useful, should be operated upon. In adults, the low limit is 10.oD; in children, 8.oD; and the operation may be done up to the age of sixty. The length of the eye before and after operation is not the same, and upon this depends the remarkable difference in refraction; for example, Fukala found it necessary to order with 31.oD, for distance, — 2.5D, and again, with 20.oD, plus 4.oD.

Darier (Paris) gave an account of 148 cases in his practise, in which, in eighty-five per cent., a distinct improvement in vision could be shown; in ten per cent. vision was stationary; and in five per cent. the eye was lost.

Vignes had operated six times in cases of more than 15.oD of myopia, and had never seen an improvement in vision.

Bluenthal (Riga) operated upon a patient twenty-five years old, with 16.D, and lost the eye from glaucoma.

Blessings saw, in thirty cases, three eyes lost, twice from detachment of retina and once from iridocyclitis.

Schmidt-Rimpler had operated in twelve cases with satisfactory results, but wished for more exact indications for the operation; for many myopics are satisfied with glasses, and should not be subjected to the risk of operation; and, furthermore, in two cases increase in the myopia was noticed after the operation.

Hirschberg referred to twenty cases and emphasized certain indications. He did not operate under 15.oD; and since detachment of the retina is the great danger, he carefully avoided loss of vitreous, and repeated operation. Extraction of the transparent lens offers no difficulties. Glaucoma is not a rarity, and must be considered. The operation is not new, and in selected cases is to be considered.

Knapp (New York) remarked that in America cases suffering from high degrees of myopia are not so frequently met with as in Europe.

Worthy of Imitation.

The Mayor of Buffalo, N. Y., will not permit the sale of spectacles in the street by venders, and every license granted to a pedler bears the clause: "No eye-glasses are to be sold under this license." The Mayor very properly holds that he has the power to forbid the sale of spectacles, on the ground that the eyes not being sufficiently tested before purchase, great injury might result to the purchaser.—*Annals of Ophthalmology.*

Hitzstaar or Heat Cataract.

Hirschberg, at a recent meeting of the Berliner Medicinische Gesellschaft, reported finding five glass-blowers, out of thirty employed in a factory, suffering from cataract. Other authors have remarked the frequency, and the early age (before forty years) that glass-blowers develop cataracts. This has led to the use of the term *hitzstaar* (heat-cataract). The statement that cataracts are more common in hot climates than in cold is confirmed in India, where cataracts are often seen in persons of forty years of age, whereas in colder climates the average age for senile cataract to develop is sixty-two.

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
Lecturer on Dermatology, Detroit College of Medicine.

A Case of Urticaria of the Pharynx Producing Grave Edema of Glottis.

John Madison Taylor, M.D., of Philadelphia, reports the following:

"The patient had dined with a few friends and was afterwards asked to sing. On attempting to comply, she suddenly felt unable to do so, for no well defined reason. The vague feeling of distress steadily progressed and was described as an increasing discomfort confined chiefly to the throat, but felt elsewhere pretty generally, and finally grew so great as to lead the patient to beg to be escorted to her home. During the short walk of one hundred yards, great weakness was experienced, and a dreadful sensation of impending death, to so great a degree as to cause her to sink down, prostrated physically, a few yards from her door, whence she was carried to her bedroom in what seemed to be a dying condition. I found a girl entirely composed in mind, but scarcely able to speak, suffering from what she described in whispers as a closing up of the throat, which, if not soon relieved, must inevitably choke her completely; the face was livid and cyanotic, there was gasping and throwing back of the head, a weak, fluttering pulse, but complete mental clarity, which aided me unspeakably in my hasty efforts to learn the symptoms and apply remedies. Not until ten minutes or so had elapsed did the urticaria reveal itself by appearing on the skin, and then the condition spread rapidly over almost the entire body, causing the characteristic intense itching and burning with redness and wheals. This continued for several hours, slowly subsiding in the next few days, and then occasionally recurring. My efforts were naturally directed to relieve the dyspnea. Suffice it to say, I used counter-irritation in the shape of heat to the feet, ice to the neck, and a spray of antipyrin and cocaine to the pharynx, which gave prompt comfort; also hypodermics of strychnine and atropine; later pilocarpine, and, internally, ammonia and stimulants."

Tinea Tonsurans.

In a report of an epidemic of twenty cases of tinea tonsurans Dr. G. Gordon Campbell, assistant physician, Montreal General Hospital, gives the following summary of the nature of the fungus:

Thirteen, or sixty-five per cent., were classed as microsporon Audoini; four, or twenty per cent., as trichophyton megalosporon endothrix; and the remainder, fifteen per cent., could not be determined. This proportion of the two varieties corresponds very nearly to the results obtained by the examination of cases in the Montreal General Hospital. The large majority of our cases are due to the small-spore form.

THE MEDICAL AGE

VOL. XVI. DETROIT, MAY 25, 1898. No. 10.

ORIGINAL CONTRIBUTIONS.

VAGINAL CYSTOTOMY FOR REMOVAL OF STONES; WITH REPORT OF THREE CASES.

BY P. HYRUP-PEDERSEN, M.D., DENVER, COLO.

The bladder inferiorly forms a close attachment to the anterior wall of the vagina by means of a dense cellular cushion which increases in thickness from before backwards. The bladder rests upon this vesico-vaginal septum as far up as the point where the body and neck of the uterus join each other (Skene).

The anterior and superior part of the posterior surfaces of the bladder are covered by peritoneum; the inferior and lower part of the posterior surface rests upon the vagina, as stated above, and is not covered by peritoneum.

The advantages of the vaginal cystotomy over the suprapubic are the absence of the peritoneum, and consequently no danger arises from peritonitis and free drainage of the bladder is secured on account of the law of gravity, which will help to cure the concomitant cystitis. The incision can be made longer through the vaginal section than through a section above the os pubis, and this will allow a free digital exploration, giving the operator certainty that there are no other calculi left after the operation is done.

Method of Operating.—I put the patient in the lithotomy position with an assistant on either side. The vulva and vagina are thoroughly scrubbed and disinfected according to the general rules; the bladder is irrigated with a 1:5000 solution of permanganate of potassium.

A short posterior retractor is placed in the vagina and held in position by one of the assistants, while the other places a male sound into the bladder and directs it downwards, putting the anterior vaginal wall on the stretch, and on this sound the incision is made through the median line of the anterior vaginal wall large enough to pass the index-finger through. The stone or stones are located, their size carefully noted, and the incision enlarged to such an extent that they will pass through without causing any tear, as a clear cut will heal up only too readily, whereas a tear, as a rule, will leave a permanent vesico-vaginal fistula.

An ordinary pair of gynecological dressing forceps are passed through the incision guided by the index-finger, the stone is grasped by these and pulled out; the finger next explores the bladder, and if any other calculi are found

they are treated in the same way. A free capillary hemorrhage takes place from the mucous membrane of the bladder on account of its rich blood supply; this is, however, controlled with a very hot irrigation of some antiseptic solution; a 1:5000 permanganate of potassium solution, or a one-per-cent. solution of lysol, or 1:10,000 solution of bichloride of mercury, answers very well. After the hemorrhage has been checked I commence to stitch up the fistula with interrupted catgut sutures, leaving a small opening near the entrance to the vagina, and in which I leave a soft-rubber catheter to secure free drainage of the bladder; the wound is next dressed with iodoform gauze and the patient placed in bed. Twice a day for a few days I irrigate the bladder through the catheter I left in the fistula with a 1:5000 solution of permanganate of potassium, taking care not to overdistend the bladder and cause undue traction upon the stitches in the upper part of the fistulous opening. The catheter is removed in a few days, and the opening in which it was left will heal up by itself without any trouble.

The first case seen by me was a patient of Professor Howitz, in Copenhagen, and I had the pleasure of assisting him with it in the beginning of November, 1893. She was an elderly and well-developed lady. A cystoscopic examination was made, and the stone was found adherent to the posterior wall of the bladder. A couple of days afterwards a cystotomy was done according to the method described above, and the stone was located with the index-finger; it was found to be hour-glass-shaped, and one of the lobes was buried under the mucous membrane of the bladder. The stone was about one and one-half inches in length and each lobe about one-half inch in diameter. The incision was closed and the patient made a rapid, uncomplicated recovery.

The second case seen was as follows:

Mrs. B——, aged thirty-five, referred to me on March 9, 1895, by Dr. Stedman, of this city. The patient gave the following history: She was operated on a year and a half ago in Butte, Montana, for a pyosalpinx dextra, and both tube and ovary on that side removed through an abdominal section. A letter from the attending surgeon to herself states as follows: "Your operation consisted in the removal of the right ovary and right Fallopian tube. Your disease consisted in salpingitis and pyosalpinx of right ovary and right tube. Left ovary adhered to sigmoid flexure; adhesion broken up and attended to; cause of adhesions, pelvic peritonitis."

The patient was, according to her own statement, in bed about eight weeks after the operation, during which time she had high fever. Dr. Axtell made an examination of the urine, which contained an abundance of pus and bladder epithelium.

Inspection revealed a swelling of the abdomen and a scar extending from the umbilicus to the os pubis from five to ten centimeters wide. The operator had undoubtedly cut into the bladder (I hardly see how he could have avoided it, as his incision extended so far down). Percussion revealed absolute dulness from the lower one-third of the umbilical and both iliac regions, especially well marked on the left side. I suspected at once some kind of an abdominal tumor; and as the patient was too tender for an internal examination, I decided to examine her under anesthesia.

March 14 I made this examination, assisted by Drs. Rogers and Axtell, and we made out the following condition: Purulent metritis; uterus in normal position, but immovable; left ovary adherent to the sigmoid flexure; bladder seemed to be adherent to the abdominal wall, and the pelvic cavity seemed to be filled with a mass of adhesions; the suspected pelvic tumor had disappeared. We decided to take her to the hospital, and make a cystoscopic examination, and at the same time attend to her metritis.

March 17 we tried to make this cystoscopic examination at St. Luke's Hospital, but the cystoscope failed to work. We then washed out the bladder carefully with a three-per-cent. boric acid solution and explored it with our catheter, but failed to find any foreign substance; we therefore supposed the cystitis to be due to an accumulation of urine caused by inability of the bladder to contract on account of the adhesions, and we decided to treat the cystitis by irrigation. The uterus was curetted at this time, however, followed by an injection of tincture of iodine.

I irrigated the bladder once a day with a 1:5000 solution of permanganate of potassium, and the patient made a rapid recovery under this treatment. She left the hospital in about two weeks, feeling fairly comfortable. She came to my office and had the bladder irrigated—first once a day, and later on every other day. She continued coming until about May 1, when she ceased.

May 26 I was called to see her, and she was then suffering excruciating pains throughout the pelvic cavity. I advised her to go to the hospital to have her adhesions attended to, but to this she would not consent. Her urine contained much pus and bladder epithelium, and I offered to irrigate the bladder again, but she would have nothing done. I relieved her pain with a hypodermic injection of codeia. Up to July 15 I was called now and then to see her, to relieve her suffering. On July 15 she consented to have her bladder irrigated every day, and I commenced doing this with a 1:5000 permanganate of potassium solution.

On the 23d of July, while washing out the bladder with my silver catheter, I felt a rough, hard substance. I decided I had found a stone in her bladder, and at once explained my discovery to her, and got her permission to remove it the next day, under anesthesia. She was at once prepared for an operation, and the next day, according to the method described above, I operated on her, assisted by Drs. Clough and Seebass, and a medical student.

I removed a stone the size of a chestnut, which was composed of phosphates of soda, lime, and urates. It weighed the day after its removal 170 grains, and looked very much like a strawberry. Its nucleus consisted of a silk ligature knot.

This case presents many points of interest on account of all the adhesions in the pelvic cavity, which probably will some day cause her a great deal of trouble. The bladder had been cut into twice—first by accident at the time of the original operation, and the second time by myself when I removed this stone. This first surgeon used silk ligatures to stitch up his incision. Silk ligature is not absorbed, and acted in this case as the nucleus around which the stone formed. I used catgut ligatures, and these were entirely absorbed three weeks after the operation.

The patient made a rapid recovery, and has since, three weeks after the operation, attended to her daily duties as clerk in a dry goods store.

The third case, Mrs. S——, was operated on last winter, by Dr. Axtell, of this city, and myself. She was a patient of Dr. Axtell's, and was fifty-six years old and had been suffering for two years, but would not consent earlier to any operative interference. She was addicted to the morphine habit, and a drachm used to last her about five days.

At last she sent word to Dr. Axtell that she would rather die on the operating table than suffer any more, and the operation was set for the next day, February 2 of this year. We operated according to the method described above, and removed three stones weighing together two and one-half ounces. On account of the weakness of the patient I could not get time enough to close up the fistula, as we had to hurry her to bed. She rallied nicely after the operation, and the temperature and pulse both kept normal, but she died on the eighteenth day after the operation from general asthenia.

The autopsy revealed a very much inflamed condition of the bladder and its walls were very much thickened; the fistula had not closed up, which undoubtedly was justly due to her low vitality. There was no lesion to be found in any of the other organs which could cause her death.

CIRCUMCISION AS A THERAPEUTIC MEASURE.

BY W. M. DONALD, M.D.,
Lecturer on Medicine, Detroit College of Medicine.

The status of circumcision ought to be fairly well established, and yet one hears with wonderful frequency criticisms of a skeptical character as to its utility. As physician to the Protestant Orphan Asylum and the out-patient department of St. Mary's Hospital, both of Detroit, it has been my lot to meet a great many cases of masturbation. In the former institution it has been confined to children from six to twelve years of age, while in the latter the victims have reached man's estate.

Now I am not a believer in the prevalance of, nor in the wide-spread desolation wrought by, this vice; and yet common observation compels the statement that it exists with entirely too great frequency. Reports from public institutions for boys, such as boarding-schools, orphan asylums, etc., where lads of tender age are segregated, show it to exist there with the greatest frequency. Again, an epidemic of it will break out in some small village or some public school; and yet again sporadic cases will come under observation very often. It is truly remarkable the number of men who will admit to a physician that they have masturbated at some time in early life.

Now of a given number of masturbators the great majority are simply victims of bad associations, having learned the vicious habit from some companion. A comfortable minority, however, will be found on examination to show evidences of preputial irritation, due to adhesions or undue length of the foreskin, or both, quite sufficient to account for the vice. These latter will be cured by circumcision, if the operation be done early enough in life.

In January last the writer was confronted with several cases in the Orphan Asylum of this city which resisted all ordinary treatment. They were boys of six, nine, and ten years of age; had been victims of the habit for over a year at the very least, and had failed to respond to threats, ordinary punishment such as the removal of food and play hours, and extraordinary ones such as chastisements, etc. They suffered from elongated prepuces and phimosis.

Operation on January 22 was practised with the following results: The youngest was in the grasp of the vice to such an extent that he attempted to masturbate the day following operation, but succeeded in inducing only a vast amount of swelling and soreness, with tearing of the stitches. Since that time to the present writing, three months later, his nurse reports that he has been absolutely free of the trouble. The second boy was cured by the operation, and has since remained cured. The third boy, aged ten, was such an incorrigible case, having probably masturbated for several years, that after the operation, despite the fact that during the day he showed no sign of indulgence in his vice, yet when soundly asleep at night his nurse would discover him practising it unconsciously. I thereupon ordered rough mits placed on his hands at night, so that the rough friction would awaken him from his sound sleep. After a few nights of this treatment he gave us no further trouble.

To the relief of irritation consequent upon the operation we must of course add the psychic effect, and the fear—which we took no pains to allay—that further indulgence meant further operation.

At the time I operated upon these boys, three others suffering from nocturnal incontinence of urine were treated by the same method. Two were cured without difficulty, while the other, somewhat feeble-minded, remains as before the operation.

I have reported these three cases of circumcision for masturbation as being the most recent among those I have operated upon, and as being cases that could be followed for a fair length of time.

During the past two years several others have been operated upon for the same cause; but the notes of these cases having been lost and it being an impossibility to follow them up for more than a few weeks after the operation, I refrain from reporting them. I may say this, however, that the last report from them, several weeks after the lacerated tissues had healed, was exceedingly favorable.

In conclusion, let me urge the examination of the prepuce in infants by the accoucheur, before he ceases his routine lying-in calls. Such examinations will demonstrate with astonishing frequency the existence of preputial irritation due to adhesions or phimosis, if not an elongated prepuce demanding operation. The first two conditions should be relieved at once by dilatation or by forcible breaking up of the adhesions in order to yield the protection to the growing lad of healthy tissues and organs. The condition last mentioned, of elongated prepuce, demands immediate operation for removal. It is absurd to leave this till the child is several years of age, as so many physicians advise. Let it be done during the first year of life, so that to a degree at least danger of future moral contamination may be avoided.

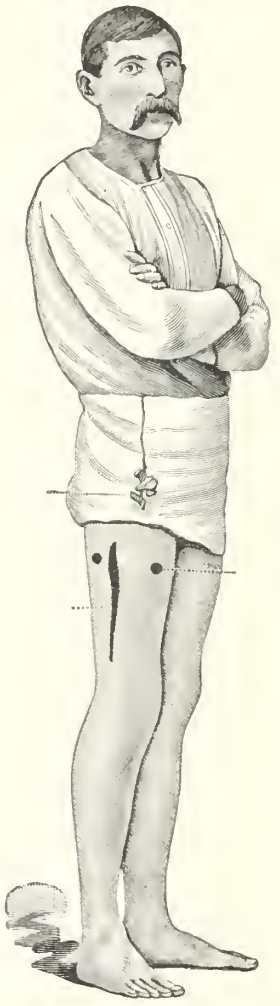
A CASE OF NON-UNION IN COMPOUND COMMINUTED FRACTURE OF THIGH, WITH FINAL CURE.

BY O. P. BARBER, M.D.,

Professor of Surgery, Saginaw Valley Medical College; Surgeon-in-chief, F. & P. M. R. R. Co.

A bar brake differs from the ordinary brake on railroad cars in that instead of being round like a wheel it consists of a single piece or bar of iron in the place of the wheel, which is grasped and turned when the brake is applied.

A brakeman named Carboneau, aged twenty-six, while engaged in turning this bar in an impending collision, had the end of the bar against his thigh so that he could crowd the brake on more forcibly, and the cars coming together at this instant with great force, drove the bar directly through flesh and bone, impaling him thereon. This transfixion was complete and just below the trochanter major, as shown in the cut.



About six months after receipt of injury he was placed by his employers under my care. Examination developed the fact that the leg through which the bar was forced was five and one-half inches shorter than the other, that there was an enlargement or callosity at seat of fracture as large as two fists, and no union whatever of the fracture had occurred. Inquiry also disclosed the fact that the limb in the first instance had been treated by Buck's extension with side splints, and after ten weeks' confinement to his back the dressings were removed, but after attempting use of his leg, non-union was discovered. Chloroform was then administered, and an effort made to produce an irritative action at the ends of the fractured bones by rubbing them together, and the limb was immobilized in a complete plaster cast and kept therein for over three months. After its removal he was assured that it was all right, but the very noticeable shortening and deformity at seat of fracture soon convinced him otherwise.

The above described condition of things now became more emphatic and intensified, on account of the legal aspects of the case. The lumber firm employing the injured man, prospectively, had a cripple on their hands for life and were willing to settle, but to his credit, be it said, he desired to try it again, and at this time he came under my care.

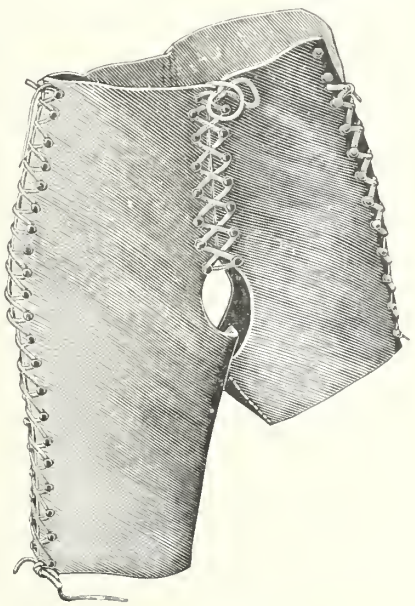
Besides the deformity, shortening, and non-union, Carboneau by this time had from enforced dorsal position become very weak and emaciated, and con-

tinuous extension had resulted in apparent ankylosis at the knee-joint with atrophy of muscles of thigh.

Under chloroform an incision was made over seat of fracture (see cut), and the bones found passed by each other, or rather the upper end of lower fragment was passed by the lower end of upper fragment five and one-half inches. Interspersed and embedded here and there in the flesh were encysted pieces of bone, orginally shattered off the bone by the bar; a handful of these were removed and are shown in the cut suspended from belt. After sawing off thin sections of ends of fractured bone the difficulty began in overcoming the contracted muscles for those five inches and pulling bones back into place. This was done at last by turning foot and leg out to right angles with thigh and getting the fractured ends under each other and prying them back into place, the leg being used as a lever and the fractured joint as the fulcrum. After being pried thus into place the least motion would touch off the tense, highly-strung muscles, and back it would go again; so finally holes were drilled through ends of bone and long pieces of kangaroo tendon inserted and a final adjustment made, the wound aseptically dressed, and plaster of Paris over all from above hips to the foot.

Through the fenestra in the plaster, where the wound was daily dressed, the condition of bones could be observed, and thus the failure of the previous reductions verified; and it was found that the rigid plaster was not holding the fracture correctly, for the action of the short, strong abductor muscles was pulling upwards and inwards the upper fragment; and being now lashed together, the lower with it, a noticeable elevation and consequent shortening was the result.

I bothered over this a great deal, and it brought to my mind the words of Prof. Frank H. Hamilton, in my student days at Bellevue, when he said: "A good way to dress a fracture is to sit and hold the bones in place until you can figure out something to take the place of your hands that will do as well."



I could crowd the bones back by pressure of hands on top of them, but no extension or other pressure filled the bill. The man was wasted, had lain on his back six months, his knee-joint was stiff from previous extension, and to insure union it was necessary that his physical condition be improved.

The leather trousers here shown was the outcome, and they filled every indication.

I had a tailor measure him snugly as for a pair of trousers, and cut the pattern, and then Mr. Grignare, of this city, an ingenious shoemaker, cut and made them with the laces. The material was

medium weight sole leather, and the grasp around the pelvis and down the other leg gave the needed firmness of position to establish extension and counter-extension—the springiness of the leather with a wool pad over the elevated fracture point and the convenience of lacing it down into a straight line made it the ideal splint.

Carboneau was immediately put on crutches, and with an attendant kept out in open air and sunshine, and as a result secured a perfect leg. He has now returned to his former active life in the lumber woods; and the Doctor received the largest fee of his professional career.

SINUS OR FISTULA FOLLOWING ABDOMINAL OPERATION.

BY H. HORACE GRANT, M D.,

Professor of Surgery and Clinical Surgery in the Hospital College of Medicine, etc., etc., Louisville, Kentucky.

For fistulæ involving the small intestine I have operated in two ways—one is to make a free incision and excise a portion of the bowel. I believe it unsafe to undertake to freshen the edges of a fistula of the small intestine, and then return it to the peritoneal cavity. Better take away all the diseased portion of the bowel by excision than return it. The edges of the intestine are infiltrated with germs which may excite local peritonitis, and which will not unlikely become general. If a free excision of all diseased intestine is made, and the ends approximated either by circular enterorrhaphy or some other method of recognized merit, there is an element of safety added to the operation which cannot be obtained by freshening the edges. I have done this operation in one instance.

In another instance I did an operation which had the same object in view, and that was to loosen the attached portion of the intestine and take it out of the cavity, removing the diseased tissue and suturing it again, anchoring the sutured portion outside the abdominal cavity until union had taken place sufficiently to make it perfectly secure; after this the wound was reopened and the intestine slipped back into the pocket formed between the general peritoneal layer and the external surface. This operation is inferior to the one previously mentioned, but was done in one instance when the patient came here from the country. This patient had a hard, thickened condition, due originally to appendicitis, of five or six years' duration. He had a fistula which discharged considerable fecal matter, but not half the feces from the bowel came out of the opening. All around underneath the muscular structures were thickened, evidences of long-continued inflammation. Here, then, it seemed to me advisable to loosen all the attachments, withdraw the intestine as I would in a strangulated hernia, and refreshen the edges; then two weeks afterwards, when the surfaces were granulating, I loosened the attachments and slipped the intestine back into the abdominal cavity, or at least through the opening in the abdominal wall. It seemed to me highly probable that this effort had caused a shutting off of the general peritoneal cavity by the attachments that had taken place between the external wall and the general peritoneum.

In another instance in which I made an artificial anus I afterwards had reason to believe union of the bowel was established. I sutured the artificial anus eight or ten days after the operation. This was done only two weeks ago. Three days after the artificial anus had been made there appeared a reestablished continuity of the intestine, the patient had several large evacuations per rectum, consequently no fecal matter came through the opening, and it occurred to me as safe to suture the artificial opening that had been made in the cæcum. This was readily done; the patient was not even taken to the operating-room, but was given an anesthetic lying in bed, and with a silk suture I closed first the mucous membrane, and then by a Lembert suture closed the peritoneal surfaces over it, or what remained of the peritoneal surface (a good portion of it had been disintegrated by the subacute inflammation which had taken place). Good union was obtained through the line of suture; but on the fifth day it seemed to me that, although the patient was still able to pass a portion of the fecal matter by the anus, it was unsafe to close this opening, so I reopened it, only large enough to allow any overaccumulation of feces to escape. The patient is now in the condition of having a fecal fistula, which is not an artificial anus exactly, as she is passing a certain quantity of fecal matter by the bowel.

I merely mention this as illustrating the facility with which these fistulæ can be closed, and the safety with which an operation can be done while the peritoneal cavity is thoroughly shut off. Of course there would be some danger in this case in returning the sutured intestine to the abdominal cavity two or three weeks from now, because granulations which are essentially of such nature as would infect the peritoneum if they were returned would cover the whole surface. Still there would be such adhesions formed between the inner portion of the intestine and the general peritoneal cavity as I think would prevent infection with proper precautions.

SEWAGE DISPOSAL: SOIL-POLLUTION FROM CARELESS DISPOSAL OF SEWAGE.

BY F. A. LYMAN, M.D., MADISON, WISCONSIN.

Among the various influences which tend to promote health or produce disease there is, perhaps, none more deserving the attention of the public at large, and most of all of the medical profession, than the subject of soil-pollution and its climatic effect.

It has been frequently affirmed as a general truth that the great difference of one country from another, in point of salubrity, consists in its greater or less proportion of soil which produces noxious effluvia. Our bodies need pure air, pure water, and pure nutritious food. Whatever tends to pollute the purity of these demands our every attention. How to prevent or remedy this evil should be a matter of general education. Air and water enter largely into, and are important ingredients of, the soil. It is almost exclusively through these agents that whatever is harmful in the soil is brought in contact with the human body.

The atmosphere penetrates the earth and circulates beneath its surface to an indefinite depth. The wind keeps up a constant movement of the ground atmosphere, and has an important bearing upon some causes of disease, especially those associated with impurities of the air of our houses.

Air derived from polluted soil may be drawn from a great depth, as well as from a distance laterally, and convey with it disease germs, and so pollute the air we breathe.

Paving of towns may lessen the ascent of foul gases, and diminish the chance of surface pollution of the soil, but at the same time pavements may turn the ground atmosphere to the houses, which it enters through carelessly constructed cellar floors. The ground atmosphere follows the course of least resistance in making its escape at the ground surface. Public parks and spaces adjoining houses where there is no surface pollution furnish free admission of atmospheric air into the ground for diluting the ground air.

Rocks as well as the disintegrated materials combined in the formation of soil have power to absorb and retain moisture, chiefly derived from rain-water and moisture drawn by capillary attraction from the ground-water of the lower strata of the soil.

Pollution of the soil has, in certain cases, followed interments. This fact is well kept in mind while considering this subject. Care is necessary in the location of cemeteries that their influence on the soil should not cause contamination of any water-supply.

The soil may be polluted by means of surface defilement, by omission in removing offensive matter; by slovenliness and neglect in disposal of refuse matter, garbage, slop-water, etc., which rapidly undergo fetid decomposition—give off poisonous vapors which pollute the surrounding air and everything it contains. The liquid parts, as well as the gases, pass into the soil and pollute it by soakage, causing soon a filth-sodden soil injurious to health. Such soil forms a favorable place for development of the germs of disease. The foul air rising from such soil pollutes the air of houses far and near, and favors enteric fever, cholera, and dysentery.

The excreta, both of man and domestic animals, furnish the most frequent source of soil contamination. This is the most dangerous source of pollution, and the most difficult to prevent. Excreta pass by leakage from faulty sewers and drain pipes, from the common privy vault, and from cesspools, soaking the surrounding soil. If the source of pollution is near dwellings the soil under them becomes polluted and foul air rises and enters through the cellar into the dwelling. The common privy furnishes the most dangerous source of soil-pollution. Foul gases, and even the liquid contents, pass into the surrounding soil, charging the ground, air, and water. The filth leaks into nearby wells and springs, defiling their pure water, rendering it unfit and unsafe for drinking purposes. The surface of the ground is no indication as to the kind or position of the underlying stratification. Filth may soak the ground for a distance, then reach a clay stratum, along which the ground-water carries it on its way to contaminate the wells and springs it supplies. By chance, ground pollution may not cause trouble until infected excreta reach the polluted soil, when epidemics follow and call attention to the evil.

This nuisance, then, carries the specific germs of disease by polluting the air and water, which are the means of spreading the most common and most fatal of diseases. The infected excreta from one case may be sufficient to inoculate thousands. Again and again do we read of epidemics of typhoid fever coming about through careless disposal of sewage and through soil-pollution.

One of the most instructive epidemics on record is one mentioned by Strumpell. In the spring of 1885, at Plymouth, Pa., a town of 8000 inhabitants, typhoid fever broke out, and before it ceased affected 1200 persons, causing 130 deaths.

It was found by careful investigation that in January, February, and March, 1885, a case of typhoid fever, coming from Philadelphia, was cared for at a house out of town, which house was built on a hilltop sloping toward a water-supply of the town. The dejections from this case were thrown on the ground, which was frozen at that time. A sudden thaw carried the discharges into the natural surface channels, through which means the public drinking-water supply of the town became contaminated, and on April 10 the epidemic began.

Those who derived their water-supply from other sources were spared by the disease.

Rafter and Baker in their book, "Sewage-Disposal in the United States," refer to the outbreak of typhoid at Lausen, Switzerland, by way of enforcing the statement that dejections of typhoid patients should not be allowed to pass into streams, or to be even cast to the ground before thorough sterilization, and also to indicate the probable vitality of the typhoid germ. Lausen, a village of 780 inhabitants, located on gravelly soil, had been free from typhoid since 1814, with one exception, which was an imported case.

From August to October, 1872, 130 persons suffered from typhoid, all of whom used drinking-water from the public village well. Those using water from other sources were not attacked. Investigation showed that in June, July and August of the same year several cases of typhoid occurred in the country some miles away. A brook was carelessly contaminated with the typhoid dejections. The contaminated water from this brook was later used for irrigating purposes within a mile of the town. Experiments proved that water from the irrigated land could find its way through the soil to the city well a mile away. So it was considered fair to conclude that the typhoid germs passed also through the soil, the distance of a mile, retaining their vitality, contaminating the well-water, and causing the epidemic which followed.

Equal care is needed in the disposal of the excreta of domestic animals, slaughter-house refuse, and animals dead from common causes, or from infectious diseases, to prevent soil-pollution.

Glanders, hog cholera, Texas fever, anthrax, tuberculosis, and actinomycosis may be spread among cattle exactly as typhoid fever is spread among men.

Sewage-contaminated water should not be used for animal drinking-water. The use of such water has been proved to be a cause of large mortality among cattle.

We must also remember what Dr. Billings has pointed out, that "man has far greater receptivity to contagious diseases of animals than they have to those of man," and we must use safeguards against soil-pollution, and thereby contamination of drinking-water, through the germs of diseases common to domestic animals.

To prevent soil-pollution we must be alive to prevent neglect and careless surface contamination; we can frequently remove refuse from about our dwellings, and work for thorough sterilization of infected excreta; we can study to perfect means of sewage-disposal, especially the privy system of small towns; we can remove existing causes of contamination, and labor to facilitate natural processes of purification by drainage and by giving free access of pure air to the soil.

VERATRUM VIRIDE.

BY WILLIAM F. BARCLAY, A.M., M.D., PITTSBURG, PA.

It is not within the limit of a short paper to consider all that has been written upon veratrum viride. Almost all works written upon the subject of therapeutics have considered veratrum viride and the preparations that have been made from the drug. Veratria is considered the most active principle, and by many is preferred when the action of veratrum viride is indicated in the treatment of diseases. The tincture known as Norwood's Tincture is usually designated and preferred on account of its uniform therapeutic action and the modification of the action of the heart and arterial tension. The careful use of veratrum viride and the observation of its action render it one of the most reliable therapeutic agents at the command of the physician. The action of veratrum viride is modified by its combination with other medicines, and thereby less care and caution is required in its use. The dose of veratrum viride is necessarily small, and it should not be repeated oftener than every three or four hours. It seems to act upon the red muscular fibers and thereby modify their toxicity.

The alarming symptoms brought on by the use of veratrum viride are relieved by the use of strychnine and the diffusible stimulants. It has been the practise of careful clinicians to prescribe strychnine with veratrum viride, and thereby permit of its increased administration in cases where the action of the remedy is positively indicated. A careful study of its use in the hands of an eminent practitioner in the treatment of a case of double pneumonia convinced me that its value in the treatment of this disease could not be overestimated. It has been a successful practise since that time in my own hands in the treatment of pneumonia, acute bronchitis, pleurisy, pleuro-pneumonia, and inflammatory rheumatism and other acute inflammatory affections. I would remark that the use of veratrum viride in the treatment of acute tonsillitis in combination with other remedies will modify the disease as no other remedy will in the management of this most painful and usually intractable affection. In parenthesis I would state that the action of opium is contraindicated in the treatment of acute tonsillitis. I have known a number of deaths to be the result of the ill-advised use of opium in the treatment of this affec-

tion. The administration of opium for the relief of pain and restlessness that always accompany tonsillitis results in cessation of pain and total collapse, from which the patient seldom if ever reacts.

The especial use of veratrum viride in the treatment of capillary hemorrhage has in my hands been most successful, and has never disappointed me in the management of the most intractable cases of hemorrhage of the nose, stomach, lungs, and uterus. The mention of this observation to a friend in the profession suggested the preparation of a short paper on the use of veratrum viride, for publication in the MEDICAL AGE. The prompt arrest of the most intractable hemorrhage in my practise for over twenty-five years justifies the confidence I have in the action of veratrum viride in controlling capillary hemorrhage of an active or passive character. The recitation of cases treated would make this paper too long, also the method used in the administration of the drug, which is at all times suggestive in the hands of the intelligent practitioner. The use of veratrum viride in the treatment of uterine hemorrhage has never failed to be satisfactory in the relief afforded, even when the usual remedies have been unavailing in the modification or arrest of this most annoying condition, which is usually superinduced by conditions that are difficult to understand and not infrequently incomprehensible.

Increased and prolonged menstruation is a complaint that the physician is called upon to treat frequently in special and general practise, and perhaps no other treatment is less unavailing in the management of these cases than that which is usually suggested and employed.

Reference to authorities creates the impression that veratrum viride is either an unknown drug in its action or that it is too dangerous to be generally employed in the treatment of diseases. The poisonous action of veratrum viride upon the system produces conditions that are most alarming, yet I have been unable to find one death reported from its use. The action of veratrum viride does not appear to be cumulative, neither does its prolonged use seem to be injurious where its use is indicated. I have directed one drop to be taken in epistaxis for several weeks, with an apparent tonic effect, either from the direct tonic action of the drug or the arrest of loss of blood. It would seem that further study and application of veratrum viride alone or in combination would add to our present therapeutic knowledge.

AN English journal thus comments on the injurious effects of anger: "Anger serves the unhappy mortal who indulges in it much the same as intoxicants constantly taken do the inebriate. It grows into a sort of disease which has various and terrible results. Sir Richard Quain said, not long ago: 'He is a man very rich indeed in physical power who can afford to be angry.' This is true. Every time a man becomes white or red with anger, he is in danger of his life. The heart and brain are the organs mostly affected when fits of passion are indulged in. Not only does anger cause partial paralysis of the small blood-vessels, but the heart's action becomes intermittent; that is, every now and then it drops a beat—much the same thing as is experienced by excessive smokers."

IN MEDICAL CONCLAVE.

DETROIT ACADEMY OF MEDICINE.

At the regular meeting held May 10 the Fellows of the Academy listened to an interesting and suggestive paper by Dr. H. C. Wyman, entitled "Two Cases of Joint Injury, Shoulder and Knee." The shoulder injury was extraordinary in the fact that a man aged sixty-four, on being thrown from a wagon, struck on his back and shoulders in such a manner as to injure each shoulder-joint exactly alike. From the time of the injury he was unable to make any motion involving the deltoid muscles. Three months after the accident he presented the signs of a double dislocation of the shoulders, which under anesthesia could be reduced, but would at once return. Physicians who had the case at first said there was no dislocation then. There is marked atrophy of both deltoids, with loss of function. Is it a nervous trouble, central or peripheral? or was it an undetected double dislocation?

The knee trouble was a rupture of the quadriceps extensor femoris tendon from the patella, where by education the man was able to use the auxiliary muscles so well that the gait did not show that there was any rupture at all, even though now there is a four-inch separation.

Another case reported was that of wrist-drop and paralysis of the extensors of the forearm, with athetoid movements of the upper arm of the same side coming on suddenly after a fall in an alcoholic. Question of diagnosis was interesting.

ACCORDING to the *British Medical Journal*, ether drinking, which was so prevalent in certain parts of Ireland a few years ago, was attributed by some to the success of Father Mathew's crusade against alcohol. The propounders of this theory appeared to hold with Byron that "man being reasonable must get drunk," and that if he could not fulfil this hypothetical law of his being by means of the stimulants in common use, he was pretty sure to find some other agent for the purpose. According to Dr. Sohn, a medical official of East Prussia, men, women and children in that province indulge so freely in ether drinking that the roads and markets reek with the mawkish fumes of the drug, just as the railway carriages on the lines of some market towns in the North of Ireland used to do on fair days. The schoolmaster's teaching is powerless against the pernicious habit; and it may be gathered, though the fact is not expressly stated, that the pastor's homilies are equally ineffective. Lithuanian peasants, says Dr. Sohn, are the chief victims, and the favorite tipple, known as "Schwefeläther," and consisting of ether and spirits of wine, can be bought without the least difficulty in grocers' shops. Dr. Sohn attributes the spread of the practise to the imposition in 1887 of a duty on corn brandy, which costs about eightpence a quart, whereas ether, being untaxed, can be purchased for sixpence. The local authorities have prohibited the sale of the noxious stuff, save by apothecaries, and under medical authority; but it is anticipated that strong measures will have to be taken by the Government to stamp out the evil.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

GONORRHEA AND THE SILVER QUESTION.

Twenty years ago Neisser discovered the gonococcus. Since that time, as a result of divergent opinions as to the part played by this diplococcus in the etiology of the disease, Neisser has continued his researches. He has sought an ideal remedy for the malady, this being one, he says, "which destroys the gonococci without injuring the mucous membrane or increasing the inflammation." The first step was to try all known antiseptics, and these gave varying results, none being satisfactory but one which had hitherto been regarded as obsolete, namely, silver nitrate. This, however, did not completely fulfil Neisser's requirements, but so nearly approached his idea that a multitude which no man can number of silver preparations have since been given to the clinician for trial and experiment by the shrewd German manufacturer. The manner in which these remedies are exploited, while extremely creditable to the commercial enterprise of their manufacturers, is not indicative of a discriminating clinical spirit on the part of their consumers. These remedies have been systematically exploited, one after the other, with insidious zeal, and the practitioner has become excusably bewildered, surrounded as he is by such an embarrassment of riches.

Owing to the marked success following the treatment of cases of gonorrhea by silver nitrate, a large number of remedies based upon silver have been freely offered. First came argentamine, but this was found too irritating. It was followed by argonin, which triumphantly, for some time, held high carnival among the gonococci embedded within the layers of the epithelium. The bactericidal power, however, of dilute solutions was insufficient. Then protargol entered the arena, championed by Neisser himself as the destroyer of gonococci. Its power is, however, questioned by many, and among them by Behrend, of Berlin. If any power lies in silver, then largin would appear to be more promising than any previous remedy, as it contains more of the metal than any of the previous silver salts, and possesses not only greater penetrating power, as demonstrated on dead tissue, but a greater bactericidal power than protargol.

Doubtless a variety of substances will be projected into the therapeutical arena before the demands of the clinician are satisfied, the patience of the manufacturer exhausted, or the vital resources of the gonococci repressed.

EDITORIAL NOTES.

A New Remedy for the Opium Habit.

The *New York Medical Journal* comments upon a remarkable discovery, said to have been made by Dr. W. W. Winthrop, of Fort Worth. When Dr. Winthrop was living in Florida he became acquainted with a negro, who would allow himself to be bitten by any snake that a person might bring him. After being bitten, the negro would take a mouthful of some herbs, which he carried in a little bag, and which he maintained antagonized the venom. By judicious use of money and whiskey Dr. Winthrop obtained a clue to the herb used by the negro, and with the help of a Scotch botanist came to the conclusion that the plant used was *Viola sagittata*, the spear-eared violet known in Florida as Husa. Dr. Winthrop states that he has tested the plant and, without aspersing its virtues as an antidote to snake venom, has found that it is an infallible cure for the opium habit. He records the experience of other physicians, one of whom claims to have cured himself of the opium habit after twenty-three years' addiction to it. The virtues of Husa will undoubtedly be systematically investigated, and in the meantime the claims that have been made for it will be accepted with wise discrimination.

The Meeting of the State Society.

The Michigan State Medical Society held its annual meeting in Detroit during the first week of the month. The attendance was large, and the scientific work was of a high order of merit. Among the unusual features of the meeting must be mentioned the programme, which, in strange and wonderful originality, exceeded the highest achievement hitherto attained by yellow-kidded journalism. The soirée musicale to which the members and their friends were invited revealed the latent genius and daring of the impresario responsible for its management. The physician, athirst for diversion, realized what gave pleasure to a reasonable mind in its hours of ease. His attention may have languished under the insipidity of the zither music, but it was revived by the inspiring movements of the clog-dance. The acme of perfect delight was, however, reached in the cake-walk. The meeting was certainly notable in more respects than one. The society honored Dr. E. L. Shurly by electing him its president. The next meeting will be at Kalamazoo.

The Discovery of America.

The Spaniards are probably asking themselves what on earth possessed Christopher Columbus that on an evil day he should have discovered America. Now that everything Spanish is to be reprobated, it is satisfactory to find that while Columbus actually discovered the Western Continent, the existence of it and the way of reaching it were suggested to him by a Florentine doctor named Paolo Toscanelli. The truth seems to be, according to Prof. De Lollis, that Columbus placed himself in communication with Toscanelli in 1479, and that Toscanelli provided Columbus with a map which guided the discoverer in his voyage. Columbus, in his log of the ship, admits the service that Toscanelli performed. The Florentines are about to celebrate the part Dr. Toscanelli performed in the discovery of the Western Continent.

ITEMS AND NOTES.

One physician in every fifty who die commits suicide.

The plague is reported to have appeared in Calcutta.

A valuable horse belonging to a Louisville, Ky., man enjoys the distinction of being the only horse wearing false teeth.

Cæsare Lombroso, the most prominent of criminal anthropologists, is a Hebrew by birth, and was born in Turin in 1836.

The English in Nice commemorated the Queen's diamond jubilee by adding a wing to the Protestant Hospital of that city.

In France if a person dies with more debts than can be covered by his estate, the doctor's bill has precedence over all other claims.

The Louisville (Ky.) *Post* says that George Arnold, of Lancaster, Ky., has invented a sewing machine for the use of surgeons to sew up wounds.

Offers have been received in Washington from over four hundred women who are ready to go to Cuba or any part of this country as army nurses.

The University of Aberdeen, Scotland, proposes to confer the honorary degree of LL.D. on Dr. William Osler, of Johns Hopkins University, Baltimore.

Dr. Cornelius N. Hoagland, of Brooklyn, is dead. He left $24,000 to the Hoagland Laboratory, which he founded some time ago by a gift of $100,000.

The medical schools of Baltimore, which three years ago adopted a four instead of a three years' course, will graduate very few students this year on that account.

Over eight hundred medical men have offered their services to the army authorities, and more than a thousand to the naval medical department, during the war with Spain.

One of the features of a new hospital building in Berlin is to be a large room in which patients suffering from lung diseases can breathe air artificially impregnated with salt.

A license is now required in order to practise medicine or surgery in the Hawaiian Islands, such license to be granted only upon the written recommendation of the Board of Health.

A Brooklyn landlord offers a house and lot rent free to the first family among his tenants in which twins are born. To the first family in which triplets are born he will present a house and lot.

The *Boston Traveller* has made of itself an organ of the anti-vivisectors. It is now trying to anger the public against Harvard by claiming that pet dogs are being stolen for vivisection by that institution.

Rush Medical College of Chicago has paid off its indebtedness of $71,000 and is expected soon to become united with the University of Chicago. Most of the debt is said to have been raised from the faculty.

The Prussian Government has decided that, after this year, the degree of M.D. will be given to no one who has not passed the State examination and so become legally qualified to practise medicine in the German Empire.

The plague in India not only still exists, but is getting worse in spite of all that has been undertaken toward its suppression. It is reported that during one day recently 265 deaths occurred in the city of Bombay from plague alone.

The French Academy has lately been discussing the subject of Spanish fly-blisters. These blisters were first introduced by Asclepiades some two thousand years ago, and have come down to medicine from the Dark Ages.

Editor Gould has taken the trouble to count the patent medicines listed in a prominent drug journal, and finds that they sum up 4320 articles, among which there are nearly 300 varieties of pills, ranging from Tutts' Tiny to Little Giant.

A German doctor who has been collecting information about the habits of long-lived persons, says that the majority of those who have attained old age indulged in late hours—that is, they retired after midnight and remained in bed late in the morning.

A writer in the *Medical Press* says: "It is computed that there are 26,500,000,000,000 of cells in the adult human body, of which 4,000,000,000,000 are fixed and 22,500,000,000,000 vagrant." The cells of the nervous system are said to number 3,000,000,000.

A man in the car was telling how good his doctor was. "Clever?" said he; "well I should say he was. The other day I called him in when I had swallowed five cents. He said if the coin was not counterfeit it would pass, and made me cough up two dollars."

Of the seven great physicians of what has been called the "later Victorian Era"—namely, Sir William Jenner, Sir William Gull, Sir Richard Quain, Sir Andrew Clark, Sir Spencer Wells, Sir Oscar Clayton, and Sir James Paget—only two, the first and last named, now survive.

To illustrate the rapidity of thought a distinguished scientist says that if the skin be touched repeatedly with light blows from a small hammer, the brain will distinguish the fact that the blows are separate and not continuous pressure, even when they follow one another as rapidly as 1000 in a second.

In Italy physicians are taxed upon their incomes, the amount of which is fixed arbitrarily by the tax collector, and against the assessment no protest is of any avail. The amount so charged against the medical man is often so excessive that he cannot make the balance of his income cover his expenses.

A French physician, M. Jabony, has obtained successful anesthesia without total loss of consciousness by compression of the carotids for a few moments. The anesthetic effects endure several minutes, which may suffice for the reduction of a dislocation, a simple incision, or setting of a fracture.

The most curiously decorated graves in the world, perhaps, are those of the natives in Zululand, Africa. Some of these mounds are garnished with the medicine bottles used by the departed in their final illness, and the duration of the malady and skill of the physician are indicated in a measure by the number of bottles.

During the academic year, 1896–7, the average percentage of rejections at all the examinations for the doctor's degree in the Medical Faculty of Paris was sixteen per cent. This does not include the thesis, on which candidates are hardly ever rejected. At the first examination the proportion of rejections was 40.57 per cent.

Dr. O'Sullivan, sometimes referred to as the "medicated lawyer," because he is admitted to practise in both of the indicated professions, introduced "ptomaines" into newspaper English. He sprang this dreadful novelty in the course of a murder trial, and every reporter in the room promptly sent him a message asking information.

A physicians' club, which aims to be a cheerful home for Berlin and all other physicians, has recently been established in Berlin. Three hundred physicians have already joined, notwithstanding the annual dues are 50 marks (about $12). Because of these high dues the club has been dubbed the "Association of the Carriage-Riding Physicians."

At a recent meeting of the financial committee of the Bavarian Parliament, Herr Landmann proposed that a university chair of homeopathy should be established in the University of Munich. The minister replied that the university to which the question had been referred had concluded that there was no need of such a chair, inasmuch as homeopathy was not a science.

According to a well known scientist, the dusting of rooms is perilous to the members of the household, in that it disseminates disease germs, which have a decided affinity for dust particles and adhere closely to them. Household furniture should be wiped with a soft cloth, the dust being carefully retained in its folds. The cloth or cloths should be thoroughly boiled daily.

Raleigh County, West Virginia, is having great excitement over the presence of witches. The people there believe in witchcraft as thoroughly as did those of New England in the days of Cotton Mather. They call upon

their witch-doctors to relieve them from troubles which they think the witches have brought upon them. The lives of several suspected old people have lately been endangered.

It is estimated that only 900 persons out of 1,000,000 die from old age, while 1200 succumb to gout, 18,400 to measles, 2700 to apoplexy, 7000 to erysipelas, 7500 to consumption, 48,000 to scarlet fever, 25,000 to whooping-cough, 30,000 to typhoid and typhus, and 7000 to rheumatism. The averages vary according to locality, but these are considered accurate as regards the population of the globe as a whole.

Leland Cufer, M.D., of the U. S. Marine Hospital Service, in an article in the *New York Medical Journal*, makes a suggestion to philanthropists that while they are bequeathing large amounts to colleges, libraries, hospitals, etc., it would be a splendid thing to have a fund for the temporary relief of those suffering with tuberculosis. The interest on $100,000 would support annually twenty such persons in a climate suitable for them.

The publisher of a daily paper in England has profited by the occurrence of a mild epidemic of smallpox to announce to his alarmed readers that each issue of the paper will be impregnated with a disinfectant. In this way the enterprising purveyor of news says that he will convert his paper into an agency for the wide-spread distribution of disinfecting influences and for the provision to all the readers of the means of safeguarding the home and the person.

A certain prominent actress died recently. It is now reported, and not vaguely either, that her death was due, not to the causes assigned by physicians, but to her too liberal use of a certain quack obesity cure. She was in the habit of swallowing this nostrum in most liberal quantities. We shall probably never know definitely whether her death was due to this expensive and reprehensible habit, but the mere suspicion constitutes sufficient warning against following her example.

Important experiments dealing with a plague of locusts are reported from South Africa. Mr. Edington, director of the Bacteriological Institute of the Cape Town government, has succeeded in destroying millions of insects by inoculating a few and turning them loose. He makes a sort of toxin by grinding up the bodies of locusts which have perished by disease. The resulting powder is mixed with water and smeared over the bodies of a few hundred locusts, which are released. The disease soon spreads and the swarm all perishes.

It having been reported, says *Food and Sanitation*, that Herbert Spencer was a vegetarian, he was one day anxiously questioned by an ardent disciple of that cult as to whether he really was of that "hygienic persuasion." Mr. Spencer replied, "Yes; I was a vegetarian for a year." Delighted, his interlocutor now demanded if he had maintained the vegetarian régime, and

surmised that in any case he had found immense benefit from it, particularly mentally. "At the end of that year," went on Mr. Spencer, in his dry voice, "I read over all that I had written during the period, and forthwith consigned it *in toto* to the fire."

A REMARKABLE case of alleged live burial is going the rounds of the Paris press. A district doctor was called in some days ago to an hotel at Montmartre to certify to a death, which he did, ascribing the cause to congestion consequent upon habitual intemperance, and the body was buried. It had, however, been noticed that rigor mortis was not well marked, and the fact was recalled that the same man was in a trance last year for a month. These rumors reached the ears of the police, and after due formalities the body was exhumed, and though it has since lain ten days in the mortuary there is no sign of decomposition.

TWO investigators have recently used the Roentgen rays to very good purpose. The first of these, Prof. H. C. Bumpus, was by their aid enabled to note accurately the number of vertebræ and record the position of the pelvis in one hundred specimens of Necturus. The other, W. C. Cannon, used the rays to obtain figures showing the changing shape of the stomach during digestion, using for the purpose a cat. The animal's food was mixed with subnitrate of bismuth, and the wave-like movements of the pyloric portion of the stomach were made clearly visible. The total number of waves passing over the antrum during the seven hours a cat was digesting a meal was about twenty-six hundred.

DR. EHLERS, of Copenhagen, states that leprosy is widely diffused in the Balkan Peninsula. This region has long since been reputed as a center for leprosy, but precise information has not hitherto been obtained on account of the lack of trustworthy statistics. Roumania alone has been noted for correct information and systematic investigation with regard to this question. Dr. Ehlers in the course of a long journey in the Balkans has come across lepers almost everywhere throughout the peninsula. Crete also seems to abound with them. The Cretan lepers, he says, present all the ordinary symptoms of leprosy as seen elsewhere, but the disease is less severe there than it is in the countries of the north. This difference is undoubtedly due to the climate.

MR. WALTER MYERS has brought before the Pathological Society a research he has made as to the action of tissue extracts on cobra poison. Experimenting on guinea-pigs, he finds that the suprarenal body neutralizes the poisons. No other organ seems to possess this power. In seven experiments the result was negative in three, but in one of these there were only trivial symptoms after seven hours, though the control animal died in two and one-half hours. In the other cases there were no symptoms in six and three hours respectively, by which times the controls were dead. Experiments were made with a number of other tissues, but the results were uniformly negative, the animals dying in about the same time as the controls. Positive results were obtained also with the suprarenal of the sheep in three cases.

The Vienna Medical Society at a recent meeting considered two reports presented by Professors v. Hoffman and Gruber on the advantages and drawbacks of cremation in regard to public health. The Society passed the following resolution: "Cremation by means of modern combustion ovens is unexceptionable from the hygienic point of view; but earth burial does not involve such drawbacks and dangers that cremation should be considered as a necessary sanitary reform. Compulsory cremation presents insurmountable difficulties and is open to objections of great importance from a medico-legal point of view. Optional cremation, on the other hand, is not open to the slightest objection provided that the burning of bodies is carried out only after a careful post-mortem examination."

"His boundless and contagious enthusiasm, his commanding personality, that indefinite something about him which men call 'genius,' his sweet and lovable disposition, which made him never see anything but good in others who would admit no good in him, combined to make of him a leader and a teacher such as I have never seen equaled in the past and never expect to see in the future. His enthusiastic study of all advances in his favorite pursuits, and the energy and zeal with which he advocated new methods and treatments, many of which have passed into the limbo of things that are justly forgotten, founded a school of disciples who have since worked hard at subjects which before his time were almost completely neglected." Said of Sir James Simpson recently by Prof. W. S. Playfair.

The ancient Egyptians were acquainted with prussic acid prepared from peach kernels, as appears from the words, "Pronounce not the name A. I. O., under the penalty of the peach," deciphered by M. Duteil on a papyrus in the Louvre. An example of the use of prussic acid in Rome is the murder of Britannicus by his brother Nero. Hot water was a favorite drink in fashionable Roman circles at the time. One day after dinner a slave brings to Britannicus his beverage. It is too hot. Cold water is added, presumably containing the poison. Immediately on drinking the victim lost power of speech. The breathing ceased. His mother and sister were horror-stricken. Nero, the murderer, looked coldly on, remarking that such fits often happened to him in infancy without evil result. In a minute or two the banquet proceeded. If this again were not sudden death or brain disease, the cause of death must have been the prussic acid. Owing to the loss of that ancient knowledge of anatomy and physiology possessed by the Egyptian embalmers, no post-mortem was possible. In the absence of such knowledge much importance was attached to outward signs. Doubtless many persons must have died from poison, and the reason of their death remained unknown; while others who died naturally, but whose bodies putrefied rapidly, were supposed erroneously to have died from poison.

NEW PUBLICATIONS.

AN AMERICAN TEXT-BOOK OF GENITO-URINARY DISEASES, SYPHILIS, AND DISEASES OF THE SKIN.

In this volume is included almost a complete library of genito-urinary diseases, syphilis, and diseases of the skin. The work is written in accordance with the modern idea of having a large number of different writers to treat different aspects of the subject matter. The contributors include the most distinguished names in America in these departments of medicine. The work is modern in spirit and authoritative in tone. The chapters on genito-urinary diseases are especially excellent, and deal comprehensively with all modern experience in the treatment of these diseases. The illustrations are especially good and for the most part are original. The chapters on syphilis are concise and useful, covering the fields of etiology and treatment in a very satisfactory manner. The section on dermatology is admirable, and will be valued by both general practitioner and specialist. The work covers in a single volume what has hitherto required three or four volumes to contain, and the practitioner who purchases the work will find that he has invested in a book which singly will take the place of many authorities with which his book-shelf may be overburdened.

An American Text-book of Genito-Urinary Diseases, Syphilis, and Diseases of the Skin. Edited by L. Bolton Bangs, M.D., and W. A. Hardway, A.M., M.D. Illustrated with 300 engravings and 20 full-page colored plates. 8vo, pp. 1230. Price, $7.00. Philadelphia: W. B. Saunders, 1898.

A MEDICAL HAND ATLAS.

Those familiar with the German edition of Dr. Jakob's valuable hand atlas will congratulate the publisher of the English translation upon acquiring such an excellent manual. The work deals with the elements of clinical diagnosis and special pathology and therapy of internal diseases. The subject of Hematology is included, as well as all other subjects that are usually handled by works on physical diagnosis. The book contains a series of plates, prepared carefully in colors of the author's own preparations. The major portion of the work deals with bedside diagnosis from physical signs. The illustrations in this part of the book are prepared from actual cases, which give them an interesting clearness not attained by the usual diagrams. The work is undoubtedly the most valuable one on clinical diagnosis now accessible to the student.

Atlas of the Methods of Clinical Investigation. With an Epitome of Clinical Diagnosis and of the Special Pathology and Treatment of Internal Diseases. By Dr. Christfield Jakob. Authorized Translation; 182 Colored Illustrations. Philadelphia: W. B. Saunders.

INTERNATIONAL CLINICS.

Volume I of the eighth series of International Clinics fully maintains the reputation achieved by previous issues. The present volume contains a large number of very interesting lectures in nearly all departments of medicine. A feature of the present volume is a large number of excellent lectures upon various aspects of heart disease. As a means of continuing clinical instruction to the medical practitioner, the International Clinics are unsurpassed.

International Clinics. A Quarterly of Clinical Lectures by Professors and Lecturers in the Leading Medical Colleges of the United States, Germany, Austria, France, Great Britain, and Canada. Edited by Judson Daland, M.D., Philadelphia. Volume I, 8th Series, 1898. Philadelphia: J. B. Lippincott Co.

BRIEF ESSAYS ON ORTHOPAEDIC SURGERY.

The author of these essays is well known for the ingenuity and originality he has displayed in devising apparatus for the treatment of orthopedic defects. The present volume contains a number of contributions made at one time and another to medical journals, covering not only the operative sides of orthopedic surgery, but the general scope of this department of medical science. Each essay has a peculiar interest of its own.

Brief Essays on Orthopædic Surgery. By Newton M. Shaffer, M.D., Surgeon-in-Chief to the New York Orthopedic Hospital. D. Appleton & Co., 1898.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Infiltration Anesthesia.

Schleich, of Berlin, in the April 15 number of *Pediatrics*, has this to say in regard to the technique of his method: I begin by applying ethyl chloride to the parts about to be operated on. A portion of the skin, of the size of a pea, becomes white and freezes. In this frozen area the needle of a syringe containing five grammes of the solution No. 2 (see formulas given later on) is introduced horizontally as far as the top of the opening of the cannula, so that the point of the needle rests under the cutis without penetrating into the fatty tissue. If I now press the piston of the syringe, allowing the fluid to flow beneath the skin, there is formed an anemic, slightly raised focus of injection called the "wheal," which may be increased to any size by pressure upon the piston. When it has attained the size of a flea-bite I withdraw the syringe and reinsert it at the periphery, but still within the area of the wheal, a little further in the direction of the intended incision, and again allow the fluid to flow. In this way the original wheal is extended in the line of the intended incision, the needle being repeatedly withdrawn and reinserted until the anesthetized area corresponds in size to the skin covering the field of operation. All folds of the skin must be smoothed out as much as possible, so as to allow the advancing fluid to penetrate a little beyond the fold of the skin into that part which is not elevated. The superficial area of incision being thus prepared, the anesthetizing of the subcutaneous tissue is accomplished by advancing the needle, under continuous flow of the anesthetic, from the anterior to the posterior part of the field beneath the skin down to the periosteum. It does no harm if the needle encounters the resistance of the bone. Five grammes of the fluid, equally distributed, are usually sufficient. If these rules are observed, operations may be painlessly performed. The following are my three solutions for infiltration anesthesia:

	No. 1.	No. 2.	No. 3.
Cocaine hydrochlorate.....	0.2 –3.09 Gm.	0.1 –1.55 Gm.	0.01 –0.155 Gm.
Morphine.....	0.025–0.386 Gm.	0.025–0.386 Gm.	0.005–0.0772 Gm.
Sod. chlor., sterilized.....	0.2 –3.09 Gm.	0.2 –3.09 Gm.	0.2 –3.09 Gm.
Distilled water.....ad	100.0 –3.2 Gm.	100.0 –3.2 Gm.	100.0 –3.2 Gm.

Surgical Hints.

The *International Journal of Surgery*, presenting some surgical hints to readers, has this to say:

"When you operate for appendicitis be sure that the patient's bladder is empty, and if the incision must be a low one, explore well by sight and touch so that an accidental vesical injury may be avoided.

"In cleaning granulating wounds, a dry dressing will diminish discharge

and stimulate cicatrization, but if there are sloughing areas or patches, or if the granulations are not perfectly red and clean, a wet or an oily dressing is to be preferred.

"When deciding which anesthetic you are to use in a given case, do not lose sight of the fact that there are other methods of painless operating than by chloroform or ether narcosis. Many major surgical operations may be performed with the aid of local anesthetics which avoid post-operative shock as well as certain unwelcome pulmonary or renal complications.

"When acute sepsis threatens the life of the patient, remember it is your first duty to get rid of the infecting focus. Even in accomplishing this end you must sacrifice important structures. If it is your honest opinion that your patient's life is in danger act promptly. 'Operation a success, patient dead,' is an old reproach to surgery, but not so grave a one as 'Patient dead, operation might have saved him.'

"Operations about the mouth are much more comfortably performed if the patient's head is allowed to hang in a hyperextended position over the end of the table. The sight for an onlooker is a rather horrifying one, because the blood runs over the patient's eyes and forehead, making indeed a gory spectacle, but no blood will enter the larynx, and little, if any, will be swallowed, so that the annoying post-operative nausea with the vomiting of large quantities of blood is in a great measure avoided."

MEDICINE.

Smallpox and Vaccination.

The following facts about smallpox and vaccination, published in the *British Medical Journal* of March 5, were issued by the Council of the British Medical Association December, 1897:

1. The mortality from smallpox is much less now than in prevaccination times.

2. The greatest diminution in the smallpox mortality is found in the early years of life, in which there is most vaccination.

3. In countries where there is much vaccination and revaccination relatively to the population there is little smallpox.

4. In classes among which there is much vaccination and revaccination there is little smallpox.

5. In places where smallpox prevails it attacks a much greater proportion of the unvaccinated than of the vaccinated, especially where the vaccinations are comparatively recent.

6. In houses invaded by smallpox in the course of an outbreak not nearly so many of the vaccinated inmates are attacked as of the unvaccinated in proportion to their numbers.

7. The fatality-rate among persons attacked by smallpox is much greater, age for age, among the unvaccinated than among the vaccinated.

8. It cannot be truthfully alleged that independently of vaccination smallpox is a milder disease now than in former centuries.

9. The degree of protection conferred by vaccination corresponds to the thoroughness with which the operation has been performed, three or four marks being much better than one or two, and a large mark much better than a small one.

10. Sanitation cannot account for the facts above set forth.

11. Though isolation of smallpox cases in hospitals is a useful auxiliary to vaccination, it is no substitute for it.

12. Vaccination is very safe.

13. Calf lymph is now available to boards of guardians, etc., for the vaccination of every child in this country.

THERAPEUTICS.

The Dietetic Uses of Olive Oil.

Olive oil, says the *Sanitary Record*, is now used in many ways at one time never thought of. Besides being largely used medicinally, it enters into various processes of cooking much more extensively than it did. It is well known that good eggs fried in olive oil are much better flavored than when other kind of fat has been used. In massage, bathing, and for numerous other purposes, the use of this most natural valuable food is greatly extending. The value of good olive oil is beginning to be more generally recognized throughout the world than it formerly was. Eminent authorities have experimented with it, and found it a potent agent for many defects of the excretory ducts, especially the skin. Eczema has rapidly disappeared upon a discontinuance of starch foods and a substitution of a diet of fresh and dried fruits, milk, egg, and olive oil. Its beneficial effects when taken in conjunction with a fruit diet have frequently been marked upon the hair, nails, and scalp, and supplying to the sebaceous glands the only substance which they secrete when in a healthy condition, and the absence of which is the cause of the debility of the hair, frequently ending in baldness. It has long been observed that those who live upon olive oil as a common article of food, and take it as such, are generally healthier and in better condition than those who do not. Its therapeutic and prophylactic properties are now well known to medical men. Oil is destructive to certain forms of micro-organic life, and it is reasonable to suppose that they can best be eradicated from the system by its internal use. The use of oil not only does this, but it restores to the worn out or diseased tissue just those elements of repair that its reconstruction demands.

Bromoform in Whooping-cough.

Marfan (*Journal de Méd.*, March 10, 1898) makes a contribution to the therapeusis of whooping-cough. The indications for treatment he divides into two periods—that of the spasmodic condition, and the bronchopneumonic condition. For the first the writer recommends three remedies—belladonna, antipyrin, and bromoform. In the case of belladonna, the quantity should be daily increased until the spasmodic attacks are reduced. The great drawback

of the drug is that it is badly tolerated. Antipyrin should be increased daily until the maximum dose is reached. Depressing action is, however, likely to induce dangerous symptoms. Bromoform is likely to replace both these drugs. It is soluble only in alcohol and glycerin, and its administration is somewhat difficult, but Marfan prescribes it with an emulsion of almond oil and mucilage flavored with orange. The first symptom of intolerance is drowsiness. It has no injurious action on bronchopneumonia. A child of six months old should receive three drops; eight drops when two years old; and when over five years of age, from twenty to thirty drops.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,
Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

Organo-therapy in Gynecology.

Kleinwächter (*Zeitsch. für Geb. und Gynäk.*, Bd. xxxvii, H. 3) has employed animal extracts in tablet form in several cases with the following results: In three cases of neurasthenia associated with dysmenorrhea, in which ovarian extract was administered, one patient was relieved of symptoms; but in the other two no improvement took place, and the remedy had to be discontinued on account of the increase of the nervous symptoms produced. In three cases of uterine fibroids the author was of the opinion that thyroid extract exerted a favorable action in controlling hemorrhage. Not only was the bleeding checked, but the intermenstrual period was prolonged or menstruation ceased entirely for a number of weeks. It was impossible to determine any diminution in the size of the tumors. In two cases of inoperable carcinoma of the cervix after prolonged exhibition of thyreoidin, the subjective symptoms were improved, and according to the patients the bleeding and discharges were stopped. The new growths appeared to have become firmer and somewhat contracted, and physical examination did not occasion the hemorrhage as it had formerly done. It appeared also that the rapid extension of the growth was somewhat checked. In calling attention to these results, the *Wiener Klinische Wochenschrift*, No. 8, 1898, points out the poisonous action of thyreoidin on the heart, and the secondary symptoms, emaciation, irregularity of the heart's action, glycosuria, albuminuria, etc., and warns against the employment of so dangerous a remedy.

Results of Anterior Fixation of the Uterus.

Rühl (*Monograph*, Berlin, 1897) has operated on 250 patients for anterior fixation of the uterus, and from his subsequent experience with some of these in childbirth concludes that: Operations producing a fibrous attachment of the organ always give rise to serious dystocia; where the attachment is fibro-serous labor complications are rarely met with. No evil effects were found to result from shortening the round ligaments, but difficulty was often experienced from ventral fixation, the most serious complications arising in cases of vaginal

fixation. Anomalies of fetal presentation were very frequent, and version in such instances was extremely difficult owing to the high posterior position of the os. With normal presentations labor was rendered difficult by the variance in the axes of uterus and fetus, the presenting part pressing the anterior uterine wall forward, thus forming a diverticulum, so that incomplete dilatation of the os resulted.

The Conservative Treatment of Chronic Uterine Inversion.

Kehrer (*Centralblatt für Gynäkologie*, No. 12, 1898) recommends the following procedure for replacing the chronically inverted womb: The uterus, wrapped in gauze, is drawn down to the vaginal outlet, and the anterior wall divided in the middle line through to the peritoneal lining, from the os externum to the middle of the body. The fundus is then pressed upward into the vagina through the wound and the latter closed with deep catgut sutures from fundus to os internum. Reposition is completed by seizing one lip of the cervix with a vulsellum forceps, and pressing the uterine body upward through the cervical stricture. With the uterus thus replaced, the cervical wound is sutured and the cavum uteri and vagina packed with gauze (iodoform). The operation is comparatively bloodless, rapidly executed, and no irritation or inflammation of the peritoneum is likely to result under proper precautions.

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT, MICH.

A Case of Cerebro-spinal Meningitis Associated with the Meningococcus of Weichselbaum.

Dr. James Stewart and Dr. C. F. Martin, in the *Montreal Medical Journal*, report the following case: A young Canadian female, aged twenty-one, had been spending a few weeks in Boston, and on her return to Montreal appeared to be in perfect health. The morning after her return she complained of chilly sensations, though to the touch her skin was hard and dry. Very shortly afterwards vomiting supervened and continued at intervals until the afternoon. When seen early in the afternoon the facies seemed indicative of collapse, the face being drawn, thin, and pale. She was now suffering from severe headache, mainly occipital, in the nape of the neck. On examination the temperature was 102°, the pulse small and rapid, but there was no other evidence of disease, except some tenderness over the lower portion of the abdomen. She repeatedly cried out, "Oh! my head," referring the pain mainly to the region of the vertex in the occiput of the head; she gradually grew delirious, with rigidity of the neck and photophobia. The fifth day she became comatose and died. Lumbar puncture was made the same afternoon, but the cultures resulting were contaminated, and gave no evidence of the meningococcus. An autopsy was held six hours after. Bacteriological examination with a pericardial exudate revealed the presence of the meningococcus.

Autohypnotism.

Stanley Warren (*Medical News*, May 7) ingeniously attributes the increasing number of suicides, especially in the more intelligent and educated classes, to autohypnotism. A train of unhealthful suggestions is in some way set up, which not necessarily results in self-destruction, but brings about of necessity an abnormal mental state, and bodily disease may follow. The constant repetition of autosuggestions as to suicide finally leads the subject into a state in which his (or her) statement, "I will kill myself," is not the result of thought but is purely automatic; and finally the act of self-destruction itself may be an unconscious one, therefore not a crime.

The author justly deplores the seldom fatal ending of the autohypnotism of the jingo politician, who has so thoroughly hypnotized himself as to believe that he is a statesman, but very properly points out the evil of modern journalism in its eagerness to publish sensational accounts of suicides and crime, such accounts serving too frequently as powerful suggestions to weak and receptive minds, as *e.g.*, in Washington, where lately almost an epidemic of suicide followed that of one young lady of prominence.

Abnormal mental action is to be discouraged in treatment by the constant exhibition of healthful suggestions, which shall constitute a system of vigorous mental calisthenics and lead to a plane of more normal thinking. Such a plan certainly seems more rational and so more hopeful of results than the too frequent recourse to intensely depressing drugs.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Some Nervous Reflexes of Nasal Origin Among Children.

M. Stachiewicz (*Revue Hebd. de Laryng.*) has studied the cause of certain disorders displayed in children by reason of irritation of the trigeminus. These irritations are shown principally by the inferior turbinate bodies and occasionally showing traces of other more variable complications, such as ophthalmic and cervical neuralgias, vertigo, insomnia, dyspnea, etc.

M. Stachiewicz reports a number of very interesting cases. One case is that of a small boy, very ill, whose trouble had been diagnosed as "bronchopneumonia" accompanied with edema of the lungs. Dyspnea was very severe, pulse rapid, and temperature high. The author, on examining the nose, found inflamed turbinates, and decided to paint the mucous membrane with a ten-per-cent. solution of cocaine. In a few hours the trouble had disappeared.

In two other cases in children troubled with chronic dyspnea, one had rhinitis, up to this time unperceived; the other had a hard foreign body in the inferior turbinate. Both were cured by local treatment.

The fourth case treated was a girl of eighteen years suffering from headache, vertigo, and insomnia. On examination of the nose, mucous polypi were found. In the last case, a little girl, who for five years had had incontinence of urine, rebellious to all treatment, M. Stachiewicz found the turbinate

very edematous. The incontinence disappeared after several treatments by cocainization.

The author believes that for the determination of similar troubles no pathological modification is necessary, a simple excitation being sufficient; and in conclusion dwells upon the necessity of always examining the nose, particularly among children.

Foreign Body in the Nose.

Breitung, of Coburg, reports a case of a boy five years old who had suffered for three months from loss of appetite, disturbed sleep, and a bloody purulent discharge from the nose. The skin over the nose and neighboring part of the cheek was swollen, slightly reddened, and sensitive. The upper lip was ulcerated by the bloody, bad-smelling discharge. Nostril was completely blocked. Examination revealed a mass covered with pus, which was removed with forceps. It proved to be a piece of meat, which the author thinks must have been forced into the nose by coughing. He points out the danger of forcing pus into the ears in these cases by either inflation or syringing through the other nostril.—*Deutsche Med. Woch.*

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
Lecturer on Dermatology, Detroit College of Medicine.

The Extra-Genital Chancre.

In a paper read at the semi-annual meeting of the Medico-Chirurgical Faculty of Maryland, September 16, 1897, Dr. Charles F. Bevan, Professor of Surgery, College of Physicians and Surgeons, Baltimore, Md., gave an interesting report of seventeen cases of extra-genital lesions of syphilis. The location of the chancre, summarized, was as follows: Anus, 1; cheek, 1; fingers, 2; lip, upper, 5; lip, lower, 2; hard palate, 1; nipple, 2; tongue, 2; thigh, 1. Notes from the two chancres of the nipples are given, as they are instructive in showing the source of the infection. In all the cases the later development of constitutional syphilis established beyond a doubt the correctness of the early diagnosis.

In a case of chancre of the nipple in a female thirty years of age, the sore was on the side and base of the nipple, ulcerating in type, secreting feebly, decidedly indurated, with great glandular enlargement—mammary, axillary, and post-cervical. It had first been noticed one month previously. After the nature of the sore had been explained to her she admitted that a young man to whom she was betrothed had taken some liberties with her, and had several times sucked her nipples. On examination, in his mouth were found mucous patches, and a typical pustular syphilide was over his body.

In another case of chancre of the nipple, the female, aged twenty-two years, was employed at the nursery and Child's Hospital as a wet-nurse. Three weeks after giving birth to an illegitimate child, after careful examination, she

was received into the nursery as a wet-nurse, but a foster child was not given to her until two weeks later, at which time a newly-born babe, apparently but a few days old and in perfect health, was assigned her. She was advised to nurse her own child always from one breast and give the other to the foster child, which she did. Three months later she complained of some soreness of the nipple used by her foster baby. A small superficial excoriation was noticed along the side and base of the nipple; its appearance was that of a moist papule, and some ointment was ordered her. Within ten days she complained of increased soreness in that breast; the axillary glands were found enlarged, sensitive, and stony hard; the sore upon the nipple had extended somewhat and had become thoroughly indurated. General lymphatic enlargement was now made out. Careful examination of the foster child was now made, which resulted in the finding of several mucous patches on the side of the tongue and buccal membrane; the buttocks, too, were chafed and excoriated.

The Treatment of Chronic Eczema.

A combination of boric acid and resorcin, about fifteen grains of each to half an ounce of ointment base, will be found much more efficacious in cases of eczema requiring stimulation than resorcin alone. The boric acid has, besides its sedative and antiseptic power, the property of reducing any over-stimulation due to the resorcin So Dr. Heller reports from Dr. Cantrell's clinic.—*Philadelphia Polyclinic.*

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,

Clinical Professor of Ophthalmology, Detroit College of Medicine.

The Science of Ophthalmology.

Dr. Dudley S. Reynolds, of Louisville, Ky., read a paper on this subject at the third annual meeting of the Western Ophthalmological Association, held in Chicago April 7 and 8, 1898. He said that the science of ophthalmology was in great danger of becoming tainted with loose methods of approximation. It was not to be wondered at that disappointment so frequently followed loose methods of analysis as to lead both patient and practitioner astray in searching for causes of pain and aches that refuse to yield to the supposed correction of errors of refraction. The decentrated lens and the prism have seized upon the minds of some, whilst others have apparently gone daft in their search for ocular tendons to cut, or advance. An enthusiastic surgeon recently reported his achievements in the looping of ocular tendons with catgut ligatures. Dr. Stevens had created an apparently rational place for partial tenotomy; but it was not an uncommon occurrence to read of a dozen or more tenotomies, or advancements, of the tendon in a single eye. With the tendon looped, muscular coordination in the movement of the eyes might, in all probability, be expected to observe not alone the lateral, the vertical and the rotary

movements, but like the famous gun with the curved barrel made to shoot bears behind trees, turned in all sorts of irregular directions to compensate for the eccentricities of opposing tendons.—*Journal of the American Medical Association*, April 23, 1898.

Affections of the Ear in Gouty People.

Georges Gelle (*Arch. Intern. de Laryngol. d'Otol. et de Rhinol.*) attempts to prove that gouty people have a predisposition to affections of the ear. The author ends his paper with the following *résumé:*

1. In adults, or children predisposed to or suffering from gout, the ear may be affected with acute or chronic suppurative or non-suppurative inflammations. This otitis is very intractable to treatment.

2. The gouty otitis media may start from simple congestion or infection from the naso-pharynx. The congestion may be in the attic, or in the ossicles. Later on we will observe infiltration with lime salts and retraction of the membrane.

3. Very often the catarrhal otitis announces the attack of the gout and disappears with its onset.

4. The vertigo of gouty people is almost always due to ear troubles.

Our Yellow Salve.

Dr. Fritz Schanz, Dresden, in an article in the January number of the *Centralblatt für Prakt. Augenheilk.*, calls attention to the unreliable character of the yellow ointments in general use, and highly extols the following formula:

℞	Hydrarg. oxid. flav.	0.1–0.2
	Adip. lanæ	1.0
	Aq. destil.	1.0
	Vasel. Americ. alb. pur.	ad 10.1

Schanz claims that this watery salve adheres well to the eyeball, mingles easily with the conjunctival fluids, will not become rancid, holds the medicament in the finest division, and the dark opaque pots protect it from the light.

The Visibility of the X-Ray to Blind Children.

Foveau de Courmelles has presented to the Académie des Sciences (France) a communication on the effect of the *x*-ray on the blind as determined by an examination of 240 children. The chances of optical illusion were eliminated, a uniform noise was made whether or not the rays were being produced, and the Crookes' tube was enveloped in a black veil. It was arranged that the cathode rays were discovered and the fluorescent rays concealed. Nine blind children perceived the *x*-rays. The *x*-rays not being perceptible by the normal eye, it is concluded that the retina of certain blind people can be impressed by them in much the same way as the photographic plate which registers these invisible rays.

THE MEDICAL AGE

VOL. XVI. DETROIT, JUNE 10, 1898. No. 11.

ORIGINAL CONTRIBUTIONS.

TRANSILLUMINATION OF THE STOMACH WITH DEMONSTRATION ON THE PERSON.*

BY CHAS. D. AARON, M D.,

Instructor in Materia Medica in the Detroit College of Medicine, Detroit, Mich.

No individual nowadays can pretend to encompass the whole field of the practise and study of medicine. It is true, wide experience is essential to any thorough grasp of its significance; but even the most experienced prefers to share responsibility with some one who has given the matter in hand more exhaustive study than he. It is not necessary to plead for specialization, for this has already become a fact.

Gastro-enterology has rendered service to both medicine and surgery which entitles it to recognition on the part of the medical profession as a whole. The new science has rendered such service ever since 1875. Ewald's stomach tube is employed in general practise now, and has ceased to be the peculiar property of specialists. There is no doubt that the subject of transillumination, of which I propose to speak to-day, will in due time be equally converted into common property for the profession at large. So that we shall again see specialization confer a signal benefit upon the best interests of the medical fraternity.

Advocates of new scientific achievements put forth extravagant claims, but discerning students will not yield to them at once; they will be cautious. And so I may say with reference to the subject of transillumination that an attitude of observation is quite commendable. It is far from the mind of those who are interested in transillumination to force it upon anybody and to assert that it is beyond discussion. Their suggestions are of a strictly scientific character and are put with modesty and reserve; and they leave it to the verdict of observant physicians to decide whether that which they have experimentally devised has stood the test of extended practise. I do not contend that transillumination by itself is all-sufficient in the diagnosis of stomach diseases; all that I mean to claim is that transillumination has a certain value as a form of supplementary help. Of the many methods of determining the situation of the stomach, transillumination appears to be the simplest and the most valuable.

*Read before the Michigan State Medical Society at Detroit, Mich., May 5 and 6, 1898.

The great advance we have made in the knowledge of gastric diseases is due to the introduction of modern technique. A number of attempts have been made to devise practical helps for personal examination of the stomach by means of light. I may mention the cystoscope as the first direct application of light to the human bladder. Mikulicz* applied its principles and constructed a gastroscope, by means of which he attained very creditable results. These contrivances were very ingenious, but they proved to be too burdensome for the patient and, therefore, could not enter into general use. Still, however unsuccessful these efforts were, they paved the way for transillumination. Already in 1845 the urethra was somewhat transilluminated by Cazenave and later by others. A platinum wire heated to a white heat was used by Bruck for a like purpose in 1867. In the same year Milliot† transilluminated the stomach and rectum of dogs by means of a glass tube in which two thin platinum wires were glowing. But this could not be easily applied to man on account of its primitive arrangement and the risk involved. Twenty years afterwards Einhorn‡ at last succeeded in bringing about an actual transillumination of the human stomach.

Einhorn's gastrodiaphane consists of a soft-rubber stomach tube supplied with an incandescent light; inside of the tube are wires which are connected with a storage battery. This tube is introduced into the stomach just as a regular stomach tube. Under the bright glow of the lamp the stomach forms a lantern, and on account of the translucent tissue the outlines of the stomach are readily visible. Since Einhorn introduced transillumination of the stomach it has come into practise in Russia, Germany, France, and, in fact, in nearly every country of the world.

The following items should be observed in the transillumination of the stomach:

1. The stomach should be thoroughly cleansed of all remains of food, before transillumination is attempted.
2. The bowels must be thoroughly evacuated, and the bladder emptied.
3. Transillumination is to take place in a darkened room.
4. The intensity of light should not be above four candle-power.
5. The light should not be turned on until the gastrodiaphane has been introduced into the stomach.
6. Transillumination can be performed in both erect and lying postures.
7. It must be remembered that in the lying posture the light falls away from the anterior abdominal wall and at times the results are not as good as those obtained in the erect posture.
8. Fat produces refraction of light, and this may mislead.
9. The thinner the abdominal walls of the patient are, the more reliable is the result.
10. By slowly moving the lamp the boundaries of the stomach are recognized.

*Mikulicz: "Ueber Gastroskopie und Œsophagoskopie," *Wien. Med. Presse*, 1881, No. 45.

†Milliot: *Schmidt's Jahrbuecher*, Bd. 136, p. 143.

‡Einhorn: "Die Gastrodiaphanie," *New Yorker Med. Monatschrift*, November, 1889; *New York Medical Journal*, Dec. 3, 1892; *Journal of the American Medical Association*, December, 1893.

11. The transilluminated zone has for its upper border the right and left lobes of the liver; these prevent the light from passing through.

12. The transilluminated stomach in the normal person moves during respiration.

Fig. 1.—This is how the normal stomach appears under illumination. The fundus of the stomach conforms to the concavity of the diaphragm. Five-sixths of the stomach is to the left of the median line, only one-sixth is to the right of it. The highest point of the stomach is the fundus and reaches to the level of the ninth dorsal vertebra. The small curvature is entirely covered by the liver and is visible only when the stomach is out of position. The pylorus is covered by the right lobe of the liver. The antrum pylori goes farther to the right than the pylorus.

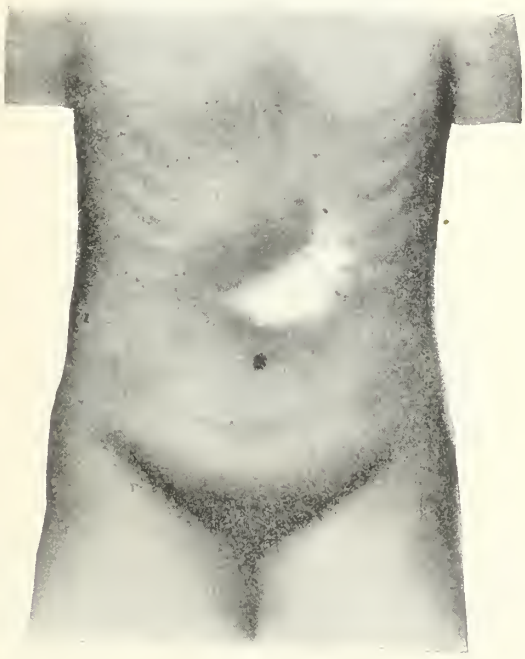


FIG. 1.

Fig. 2.—Gastroptosis is a condition in which the stomach lies lower than its normal position in the abdominal cavity — in other words, the stomach has fallen from its normal position and may reach anywhere and as low as the symphysis. We are indebted for the term "gastroptosis" to Glénard,* who was also first to describe the disease. It is usually associated with dislocations of sections of the intestines and of other organs within the abdominal cavity. The figure here presented illustrates the condition. The fact that we can recognize the small curvature of the stomach by transillumination is a helpful element in the diagnosis of gastroptosis. As said before, the small

*Glénard: *Lyon Médic.*, Mars, 1885; *Province Médic.*, Avril, 1887; *Lyon Médic.*, Juin et Juillet, 1887.

curvature can normally not be seen, and is visible only when the stomach is displaced. When the stomach with all its upper parts has sunk *in toto*, even with the cardia, the small curvature and pylorus, the stomach, of course, has lost its area of contact with the diaphragm and, therefore, shows no respiratory displacement such as the normal stomach has. Transillumination gives characteristic data in all cases of gastroptosis.

FIG. 2.

Fig. 3.—Dilatation is an enlargement of the stomach. It takes place usually at the expense of the greater curvature. The smaller curvature is usually in its normal position, while the greater curvature may reach anywhere from the navel to the symphysis. The small curvature cannot be seen when the organ is illuminated, for the upper part is covered by the liver, as in the normal stomach. This point is very valuable in the differentiation between dilatation and gastroptosis. The stomach moves during respiration; it does not in gastroptosis. The connection of the stomach and diaphragm is not impaired, as we found it in gastroptosis, hence there is a respiratory displacement. Dilatation must not be confounded with atony of the stomach. Atony designates a condition in which the muscular action of the organ is retarded and weakened, while dilatation refers to the enlargement of the dimensions of the stomach.

In a vertical stomach. The stomach is in a vertical position. This is due to the falling of the pylorus to the left of its normal position. The diagnostic point of value in these cases is found in the fact that the seat of pain which the patients complain of as being in the stomach is found by transillumination to be outside of it.

In cancer of the pylorus. When the stomach is illuminated, we discover a dark or black zone toward the right. This is due to the obstruction of passage of light, and we may regard it as suggestive of cancer of the pylorus. Inasmuch as dilatation can be made out by transillumination, and dilatation always attends a cancer of the pylorus with a stenosis, the coincidence of the dark zone with dilatation is very suggestive.

FIG. 3.

In cancer of the fundus. Here we recognize a dark zone on the left and a translucent region around it. The stomach is usually small in these cases.

Cancer of the anterior wall of the stomach can always be made out by the illumination of the organ. It is evidenced by a dark central zone with a translucent area around it. The dark zone is produced by a thickening of the anterior wall. Since light is not transmitted at that spot, but rays penetrate all around it, a dark shaded area with a luminous zone is produced.

When the cardia and fundus itself are involved, one-half of the stomach is dark, and the part not involved is transilluminated.

I wish to demonstrate the ease with which transillumination may be accomplished. I present here before you two patients, one with dilatation and the other with gastroptosis.

The following are the results obtained from illuminati ng a pathologica stomach:

1. We can determine the precise position of the stomach.
2. The size of the stomach can be positively made out.
3. Dilatation can be readily seen.

4. Gastroptosis can be made out.

5. The respiratory displacement of the stomach can be observed. This is a valuable point in the differentiation between dilatation and gastroptosis.

6. A vertical and a loop-shaped stomach are recognizable.

7. We may get information with regard to the transparency of the stomach; this is very valuable, for we can make out the probability of a tumor which otherwise may not be provable. For the rays penetrate translucent tissues, and when there is a thickening of the anterior wall of the stomach due to a growth, the light is retarded at that spot. All this, of course, under constant reference to all other methods of examination.

8. We may also be informed as to the tumors of the lower border of the liver and of enlargements and dislocations of the spleen.

9. All other methods for diagnosis may be employed, for transillumination does not replace them; it is a valuable adjuvant to them.

BLOOD-LETTING A THERAPEUTIC AGENT.*

BY BELA COGSHALL, M.D., FLINT, MICH.

At the risk of being called an old fogy, I have selected this sanguinary and nearly obsolete subject as the theme of my paper for this occasion, it being no less than one of the lost arts as aptly designated by Gross. For nearly 2000 years blood-letting was regarded by our most eminent and enlightened men as a potent and efficient remedy in the treatment of disease—a therapeutic agent that could not be dispensed with; and yet to-day it is ignored and treated by most of the profession as a useless thing. Can it be possible that so many acute observers and clever practitioners of past generations could be mistaken as to the potency of this remedy? Is it not possible we are making a mistake in not using it more freely in the closing days of the nineteenth century? What has brought about this extraordinary and radical change of sentiment? Has the type of our diseases changed, as some claim and argue, or has fashion and authority changed?

Was the ancient practise all wrong, and is the present modern practise all right? Dr. John Brown of Edinburgh and Dr. Todd of London, who are regarded by their followers as great reformers, maintained that the type of disease has changed, and that stimulants instead of depressants are indicated in this day and generation. The late Professor Gross takes issue with this, and says of all the delusions that called Toddism has exercised the most persuasive and baneful effects upon civilized society. Ensconcing itself behind a false position, it has literally enslaved the medical world, entrapping alike the wise and foolish, and sweeping over human life with a force equal to that of the most destructive hurricane. He argues that the inmates of their hospitals were from the lower walks of life, broken down by overwork, privations, and intemperance, consequently were not able to bear depleting remedies. It was from a study of this class of cases that these famous men in an evil hour deduced the absurd doctrine of a change of type in disease. He adds: "I

* Read before the Northeastern Medical Society at Flint.

assert without fear of successful contradiction that man's power of endurance in health and disease is not one particle less than it was fifty years ago, when depletory measures of every form was the order of the day; when, in fact, it would have been deemed derogatory to a physician's character to let a patient die without the aid of such remedies." The exploits performed during our late terrible war alone are sufficient to settle this question. Never since man battled with man for national supremacy were there so many rapid, laborious and brilliant marches executed in so short a time as there were on both sides of the line. The exploits of the soldiers of Alexander, Hannibal, Cæsar and Bonaparte fade into comparative insignificance by the side of some of our generals. Our laborers, farmers, miners, hewers of wood and carriers of water, mechanics, artisans and professional men evince no evidence of decline in muscular power or mental endurance. Our sailors are as hardy a race of men as they were in the days of Sir Francis Drake or Captain Cook.

The influence of authority has been great in all ages—a tyrant that has slain thousands. The tyranny of fashion affects the practise of medicine as it does other things in human affairs. The remedies we swear by to-day are neglected and forgotten to-morrow. The pendulum swings backwards and forwards from one extreme to the other. Extremes are always dangerous, and certainly nowhere more so than in the practise of medicine. Half a century ago authority and fashion were responsible for the absurd practise of bleeding, purging, or sweating nearly every patient regardless of ailment. "We cure the sick," says Guy Patin, a professor in the Royal College of France, "when over eighty years of age by blood-letting, and also infants of not more than two or three months with as much success and as little inconvenience."

Is it any wonder this indiscriminate use of the lancet brought on a reaction? Still it was a hard fought battle that Stokes and others waged against this practise. Listen to the eloquent pleadings of Stokes and Sydenham against the authority and against the excessive bleedings, the purgings and sweatings of fifty years ago. "Though his hair be gray and his authority high, he is but a child in knowledge and his reputation is an error. On a level with a child so far as correct appreciation of the great truths of medicine is concerned, he is very different in other respects, his powers of doing mischief are greater, he is far more dangerous. Oh! that men would stoop to learn or at least cease to destroy." In the treatment of fevers the fetters of a thousand years were shattered by Sydenham—shattered only to be riveted anew.

Gross says: "Authority annually slays millions of human beings. Its pernicious effects upon human life, in its individual and collective relations, are seen and felt in every direction, in the construction of our dwellings, in our habits and occupations, in our dress, social amusements, food and drink, and in a thousand ways. Of its malignant influence in our profession examples daily fall under our observation as the results of pernicious doctrines and practise. Superstition and fanaticism have kept the world in a state of intellectual bondage from the earliest records of society down to the present moment. The spiritism of the present day had its counterpart in the witch-

craft of three centuries ago, fortunately without the hangman's halter. Every age has its peculiar absurdities, characteristic of the minds of some of its people. . . . The fate of blood-letting teaches us an important lesson not at all calculated to elevate our pride as men intrusted with the preservation of the health and lives of our fellow beings. It shows what little faith there is to be placed in human judgment and how sadly we are influenced by authority and fashion in a matter pertaining to the dearest interests of society. If I wanted to be satirical, I should say that there are in our profession, as there are indeed in every other, two distinct classes of men—the thinking and non-thinking. The former, whose number is exceedingly limited, accept every novelty or great and sudden change with suspicion, wisely concluding that the one should not be rejected without sufficient cause, nor the other adopted until it has been fairly tested. The non-thinking man, on the contrary, eagerly lays hold of every novelty and seldom stops to seek a reason for his new faith. He adopts it simply because his neighbor adopts it."

Thus it may be seen that fashion and authority is a master that is not easily overcome. Every innovator from Harvey to Lister has been made to feel its force. Yet we opine the influence, the value of authority *per se*, has lessened enormously of late, and the pendulum may swing to the other extreme, to our hurt. Hooker says practise loves authority. Science must ever hold with Epicharmus that a judicious distrust and a wise skepticism are the sinews of the understanding. And yet the very foundations of belief in almost everything relating to our art rest upon authority. Sydenham was called the man of many doubts, and therein, methinks, lay the secret of his great strength. Sydenham broke with Authority and went to Nature. His motto was:

"Thou, Nature, art my goddess; to thy laws my services are bound."

A recent writer has said Sydenham is unlike every previous teacher of the principles and practise of medicine in the modern world. Osler says: "Sydenham—not Linacre or Harvey—is the model British physician, in whom were concentrated all those practical instincts upon which we lay such stress in the Anglo-Saxon character. Thus it is with our authorities. Shifting like the sands in the hour-glass, the dogmas of the schools to-day may be dethroned in the next decade. Truth is usually found between the two extremes and should be totally emancipated from the bondage of error and prejudice. Modern medicine has evidently entered upon a period of exceptional development. He who would keep up with the procession must be up and doing. He must think and reason for himself, and if needs be must step outside of the beaten path and act on his own responsibility."

That the treatment of disease has been greatly simplified, and that we are much better acquainted with the nature and treatment of disease than half a century ago, is universally conceded. The development in chemical science, the studies in pathological anatomy and histology are mainly accountable. We have veratrum viride, aconite and the coal-tar series to combat inflammation that our forefathers knew not of, but yet I contend that blood-letting is a therapeutic agent that ought to be used in cases specially adapted. In all

severe and dangerous inflammatory troubles that threaten to destroy life speedily, in my humble opinion this remedy ought to stand at the head of our therapeutic agents to-day, knowing from experience that nothing acts so speedily and energetically in dangerous inflammation as well as in congestion of the various organs. This position I will fortify by a few quotations from eminent writers of the conservative school. As before stated, we cannot believe such eminent observers as Gross, Wood, Watson and hundreds of others could be mistaken when they placed blood-letting at the head of the list of remedies in inflammation.

Gross says in his great work on surgery: "General bleeding may justly be regarded as standing at the head of the list of constitutional remedies for inflammation, as it is at once the most speedy and the most efficient means of relief. . . . Its value was not overestimated by the older writers, who designated it as the *summum remedium* in the treatment of inflammations. Yet strange to say, blood-letting, notwithstanding the high rank it has always occupied as an antiphlogistic agent, has of late fallen very much into disrepute, particularly on this side of the Atlantic, where it had at one time so many advocates. A great change has come over the profession in this respect in the last fifteen years (written in 1864) and is steadily gaining ground, subverting all our preconceived notions upon the subject and rendering it very questionable in the opinions of many whether blood-letting is really ever required as an antiphlogistic. Whether the change has been the result of a modification of the type of disease or of a more approved method of treatment with other remedies, or simply of the whim or caprice of a few prominent and influential practitioners from whom the rest of the profession have imbibed their views, I am unable to assert, but the fact does not admit of a doubt that more quarts of blood were formerly spilt than ounces are spilt now. Bleeding is no longer the fashion; the operation is denounced by every one. Public sentiment has got to an extreme upon the subject, and we may therefore look for a reaction in favor of the opposite opinion. For myself I can but regret this state of things, because I feel satisfied that it does not rest upon a just and proper basis. If we formerly bled too much, too frequently, too copiously, and too indiscriminately, it is equally certain, at least to my mind, that the operation is not often enough resorted to at the present day. Many a deformed limb, blind eye, enlarged spleen and crippled lung bear testimony in every community to the justice of this remark."

Watson in his Practice of Physic says: "Of all *direct remedies* of inflammation, the abstraction of blood, or blood-letting, as it is called, is by much the most efficient and important." Again he says: "The great remedy in acute and dangerous inflammations is blood-letting, and when this remedy is used at all, it should be used freely, so as to produce a decided impression, and its efficacy will always be the greater in proportion as it is applied in the early stages of the inflammation."

Wood in his Practice of Medicine says: "In pneumonia in persons with vigorous constitutions bleeding is the most efficient remedy. No disease bears the loss of blood better than open, well developed pneumonia." He also says under general remedies in inflammation: "Bleeding to meet the first

two indications; no remedy is so efficient as bleeding. In all times blood-letting has been recognized as a most efficient remedy in inflammation, and the experience of so many thousands who have employed it cannot have been mistaken on so simple a point of observation. My own personal experience with the remedy is certainly altogether in its favor. Having been in my early professional life opposed to the excessive use of the lancet then in vogue, I have had no prejudice in favor of the remedy; and yet I can most conscientiously declare that I have almost never had occasion to regret using it in inflammation, but on the contrary have had frequent occasion to regret that it had not been used more freely. I know as positively as I can know anything from observation, that it is not only capable of relieving inflammation in the early stages, but will often cut it short and lead to prompt convalescence; nor so far as I am capable of judging is there anything in the condition of inflammation at the present time within the limits of my observation which renders bleeding less efficacious than formerly."

If this be true (and such is my belief), then is it not time to help bring about a reaction? for I am fully persuaded bleeding is again to take its place as a therapeutic agent. Knowledge runs in a circle; history is constantly repeating itself; consequently bleeding will again come into fashion, not, we hope, to be used so absurdly as half a century ago, but judiciously in the robust and plethoric to promote resolution and save tissue in the early stages, when it has been truthfully said by Gross: "A copious bleeding at the onset of a violent inflammation is gold; at its height, lead; or, to express myself more clearly, life in one case, death in the other."

So much for this phase of the subject. I will now briefly mention some of the diseases to which blood-letting is more particularly applicable. This embraces the inflammations of various organs—pneumonia, pleurisy, inflammations of the brain and its envelope, acute pericarditis, endocarditis, hepatitis, peritonitis, enteritis, cystitis; in short, all of the "itises" too numerous to mention.

Inflammatory troubles are not the only affections in which bleeding is indicated. In puerperal convulsions in a plethoric subject I regard venesection as the sheet-anchor of our hopes. I have been unfortunate enough to have had more than a dozen cases of this terribly alarming and dangerous disease with a small death rate, owing as I think to heroic and copious bleeding followed by strong anodynes and antispasmodics. In certain forms of apoplexy bleeding is very serviceable, as well as in acute asthma. Certain forms of hysteria and epileptic convulsions dependent upon congestion of nerve centers, with a redundancy of blood in the general system, are often benefited by bleeding; so are comas from uremia. An interesting case is reported by Dr. B. W. Richardson, in the *London Medical Times* in a paper "On Blood-letting as a Point of Scientific Practice."

Case 1.—Cupping. In many cases it is not necessary to open a vein to get the remedial effects of bleeding, for the wet cup will often answer as well if not better. For over thirty years I have been in the habit of using the cups (not that of inebriates) freely in a great variety of ailments, and nothing with more speedy and satisfactory results. Well do I remember a case that

occurred in my practise when a young and inexperienced man, a few months after I had commenced the practise of my profession. A Mrs. S—— had been confined—not a difficult labor—but for some reason she was stricken with paralysis of the left side during my absence on my wedding trip. Dr. Davis, an old and competent practitioner who had consented to take charge of the case for me, called in Dr. Wixon, and after several days of active treatment gave no encouragement for her recovery. On my return to duty I immediately gave her a thorough wet cupping from the nape of the neck to coccyx, abstracting several ounces of blood. Before I had completed this process she got the use of both limbs that had been paralyzed for more than a week. I need not assure you it created quite an excitement in the village and added immensely to my reputation, for it was no small thing to outdo two such old and experienced physicians who were practising their profession before I was born. Is it any wonder I had confidence in cupping after this?

Case 2.—Another remarkable case which I had a few years later. I had been away on a visit to Flint to see my old classmate, Dr. Murray, and neglected to take my medicine case with me. I met an acquaintance, who accosted me thus: "Doctor, for God's sake hasten to the relief of Mr. I—— just ahead here; they think he is dying. Have sent to Flint for a doctor. Tell them I sent you, and do what you can for him." I went as directed, and found the house filled with sympathizing neighbors. The patient was racked and screaming with pain—was, in fact, not in his right mind. His pathetic cry was: "Boys, I am dying; its too late; the gates of Heaven are shut; I can't get in." Friends and neighbors were in tears, and great excitement prevailed. I told them I was a doctor and would do what I could for him. But lo and behold! I had not a drop of medicine with me, and was ten miles from a drug store. I remembered my cups. I directed them to bring me two of the largest glasses they had in the house, some matches, and an old newspaper, and I soon had two powerful cups abstracting blood. He continued his distressing cries for about ten minutes, when he shouted at the top of his voice, "Glory to God, boys; I am inside the gates." I had drawn him in with two ordinary water glasses. It was wonderful what a change of scene took place on that stage of action. Laughter took the place of crying, and the young doctor was quite a sensation. He had accomplished wonders and without medicine. Several hundred dollars' worth of business in this neighborhood soon followed, where before I was a total stranger, as I lived ten miles away. Is it any wonder I am a firm believer in the efficacy of cupping?

Case 3.—Mr. P—— consulted me for a severe and constant pain in right side over region of liver. Had been treated by three good physicians successively for weeks with no apparent benefit. One thorough cupping and the abstraction of a few ounces of blood relieved and cured him without medication.

I could report similar cases—several score—but space forbids. The following severe case of pneumonia will answer to illustrate and emphasize my argument that bleedings, general and local, are potent therapeutic agents that should be resorted to far more frequently than is the case at present.

Case 4.—Was called to see Mr. C——, a strong and robust butcher stricken down suddenly with a severe pneumonia of the left side. I immediately abstracted several ounces of blood with the cups, which greatly relieved him and broke the force of the disease. A week later he was attacked in the other lung. Again I resorted to the cup on this side, with the same result. Before he had recovered from this double pneumonia he had a severe attack of enteritis, which was followed by acute inflammation of the kidneys, and yet, strange to say, he recovered from this three months' siege and lived several years. I am fully persuaded the abstraction of blood on the start was the prime factor in his recovery, for several of our prominent citizens succumbed to this dangerous disease in the hands of others during his sickness.

A few words as to my method of cupping and I have done. I have tried all sorts of apparatus, but the best is an ordinary water glass of good size, with smooth and thick rim. I ruffle up some ordinary newspaper and light it and let burn for a few seconds in the glass, then apply it quickly. For a scarifier I use a thumb lancet or an ordinary bistoury from my pocket case, consequently I am always prepared if my cupping case happens to be at home when wanted, as is quite apt to be the case.

A FRENCH court at Valence has decided that, as a physician is not infallible and does not profess to be so, an error on his part as to the dose of a remedy, even when proved, does not necessarily involve responsibility for malpractise. A lady of Valence, before submitting to the treatment advised in her case by a local physician, consulted Dr. Z——, of Lyons, who in a note addressed to the local practitioner suggested injections of cyanide of mercury of a strength of 0.75 to 1000. The local physician considered the dose too weak and prescribed a solution of a strength of three-fifths of a grain of cyanide of potassium to one hundred and fifty grains of distilled water. The doctor gave two injections. The patient suffered severe pain, but after several weeks the affected parts returned to their condition before the treatment without any amelioration. When the doctor sent in his bill, the lady's husband not only refused to pay, but brought suit against the physician for damages for injury done to his wife. The court having ordered damages to be paid, the doctor appealed to the civil tribunal of Valence, which reversed the verdict, with the above named result.

THE Kingdom of Saxony is described by a German medical journal as an Eldorado for quacks. The annual report of the Saxony National Medical College for 1896 states that in that year no fewer than 745 quacks, naked and not ashamed, flourished in that happy land. This number was greater by forty-two than that given for the previous year. The total number of legally qualified medical practitioners in Saxony for the corresponding period was 1761, so that approximately there was one quack to every two regular doctors. In certain districts, however, such as Zittau, Kamenz, Rochlitz, Annaberg, and Glachau, the quacks outnumbered the doctors. Of the 745 quacks, 163 were women.

IN MEDICAL CONCLAVE.

DETROIT ACADEMY OF MEDICINE.

At the meeting held May 24 Dr. Hedley Williamson read a paper entitled "A Case of Obstetrics with Albuminuria." The author briefly outlined the importance of an early recognition of albuminuria during pregnancy as an indicator of deficient elimination of the solids in the urine. Albuminuria accompanied by dizziness, frontal headache, nausea, pain and distress in the epigastrium, especially in the later months, with a small quantity of urine voided, is always a serious condition and requires prompt treatment. The first indication in a case of this kind is to relieve the kidneys. Then if not successful, the question whether to interrupt the pregnancy becomes a serious problem. The life of both mother and fetus must be considered. The severer the uremic poisoning the less the infant's chances. The attempt to carry the case to as near full term as possible without damage to the mother was advised and regarded as feasible, provided the physician discovered the early warning signs. The case reported was one where the symptoms threatened, but by relieving the kidneys through the bowels and skin a normal labor took place, and the albuminuria rapidly and completely cleared up.

In the discussion the point was made that some of the cases of puerperal eclampsia are not due to kidney lesions; and in fact on autopsy no cause of death can be discovered. Fortunately these are rare, but such treatment as mentioned would not succeed.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

At the regular weekly meeting, April 18, 1898, Dr. Geo. W. Moran read the paper of the evening, entitled "Cervical Adenitis in Childhood." He divided affections of these glands into two classes—acute and chronic cervical adenitis —the first of which results almost invariably from secondary infection. The main etiological factors aside from the various infectious diseases of childhood are catarrh of the nose and throat, adenoid tissue of the nasopharynx, decayed teeth, and middle-ear disease. The glands most commonly involved are the submaxillary, deep cervical, parotid and post-cervical sets. They rapidly enlarge, pain is present, and the adjacent tissue becomes inflamed and infiltrated.

The diagnosis is easy, and the prospects for recovery are always favorable.

The treatment should include cleanliness and the removal of decaying teeth; after the development of the acute inflammatory stage, hot applications. The use of an ointment containing belladonna and opium sometimes checks the process and prevents suppuration. When pus has formed evacuation is the only available form of treatment. Chronic cervical adenitis may be divided into simple, tubercular, and syphilitic, the first two of which are very frequently confounded, but a careful investigation into the history of the case,

the child's age and the family history enables us to differentiate. As regards syphilitic adenitis the same principles will apply, and in addition the administration of antisyphilitic remedies comes to our aid. In tubercular adenitis the inherited predisposition, lowered vitality, bad environment or previous illness puts the gland in a favorable condition for the reception and nourishment of the tubercle germ. As far as the life of the patient is concerned the chance for recovery is favorable, the mortality being only about five per cent. As to the ultimate appearance of the neck in bad cases one is never safe in stating.

Much can be accomplished in the way of prevention by seeking and correcting the common cause of simple chronic adenitis. In the treatment of tuberculous cervical adenitis, our attention is to be directed not only to the local management of the diseased glands, but to the patient's surroundings, nourishment, tonic medication, and the correction of diseased conditions of the nose and throat. Favorable climate has a beneficial influence over the disease. In all cases where caseation and periglandular abscesses occur surgical procedures must be adopted. Early incision and drainage are of the greatest importance in the prevention of further extension and destruction of tissue, and the unsightly scars so often seen. The Doctor reported his experience in three cases treated with nuclein. One only showed improvement, while no benefit was observed from its use in the other two.

WAYNE COUNTY MEDICAL SOCIETY.

An interesting meeting of the Society was held in the Turkish room of the Cadillac Hotel, May 19. The questions for discussion were of interest to lawyer and physician, consequently the room was filled with members of the two professions. Judge W. L. Carpenter read a paper on the subject of "Malpractise," treating the question exhaustively as he would sum up the case before a jury. Dr. H. O. Walker gave the surgeon's idea of the subject, bringing out the points that the treatment of fractured bones is most often the subject of litigation, that greed is usually the exciting cause, and that the defendant too often finds himself at the mercy of a stupid jury or a prejudiced judge. Mr. Thos. Hislop read a paper on "Expert Testimony," followed by Dr. Leartus Connor in an able discussion. He poured hot shot into the ranks of the legal profession, bitterly condemning the present methods of examining expert witnesses. Mr. Alfred Lucking read a scholarly paper on the subject of "The Privilege of the Physician in Giving Testimony," followed by Dr. J. A. Weitz, who gave most of his attention to the physician's testimony in cases of insanity, condemning the present system by which a person may be so easily and flippantly adjudged insane.

ACCORDING to a German authority 2,000,000 glass eyes are made every year in Germany and Switzerland, while one French firm manufactures 300,000 of them annually. The wonder, however, is who uses them. Perhaps they are only intended for the counterfeit presentments of humanity, such as children delight to play with.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

SCHENCK'S SEX RESEARCHES.

Professor Schenck's pamphlet on the predetermination of sex has appeared, and its contents will somewhat disappoint those who have been anticipating sensational revelations. His essay entitled "Einfluss auf das Geschlechtsverhältniss" is just such a production as might be expected from a man of Schenck's scientific standing. It is a careful statement of the whole question up to date, and enumerates the conclusions to which its author has been led by his researches.

The first part of the work consists in a commentary upon previous researches, going to prove that the sex of offspring is dependent upon the state of parental nutrition, and particularly that of the mother during pregnancy. In the development of the embryo the generative organs are at first indifferent or hermaphrodite. In the further process one set predominates. This must be due to a predetermination which pertains to all the cells of the body. This predetermination may precede fertilization, a fact which is confirmed by observations on bees. Particular notice is taken of crossed sexual heredity by which each sex tends to propagate the other. The experiments of Robin and Thury tend to prove that a nutritional factor in the parent impresses a sexual destiny upon the cells of the embryo.

In the second part of his essay the fact is enunciated that the better the female is nourished the more females she produces, the number of males remaining constant. Thus the crossed inheritance tendency whereby males are naturally expected is modified by nutrition. This state of the organism's repletion is shown by the urine. For the perfect ripening of the ovum, the oxidation of the excreta must be shown to be complete. If there is a sugar residuum or equivalent in the excreted carbohydrates, a deficient oxidation factor exists whereby the properties of the fetal protoplasm cannot be developed, and hence in accordance with the theory of crossed inheritance. "When no sugar is secreted, not even the smallest quantity, then the ovum will be developed, which is qualified to become a male individual." This is the cardinal point of Schenck's doctrine, and leads to the conclusion that appropriate nourishment before and after impregnation will lead to the conception of male children alone.

If therefore a male child be desired, the maternal urine must be found without the sugar, which is normally recognizable by the phenyl-hydrazin test. Schenck quotes numerous examples of the bearing of female children in cases of glycosuria. The desired modification by diet is usually accomplished by the administration of proteid and fat.

There is something between the sublime and ridiculous in the outcome of these researches of Schenck's. The results of his investigations have been awaited with agitated expectation in the scientific world, and now to find that the whole question is one of sugar is in the nature of a sweet surprise. That the production of females is due to overmuch sweetness is a conclusion that may be more pleasing to the gallant than the scientist; while the misogynist will concede that the oppressions of the sugar trust are insignificant compared with these saccharine aberrations of Nature. If Schenck's conclusions are true, physiological glycosuria is an important condition to achieve for those nations whose populations are declining from lack of preponderance in the female elements.

The conclusion to which Schenck's researches lead is that while the births of males can in certain cases be predetermined, the voluntary production of girls is still a problem in which the embryologist will find opportunity for future labor and speculation.

EDITORIAL NOTES.

Husa for the Opium Habit.

In a previous mention in this journal of "Husa" a mistake was made in saying that this remedy was derived from *Viola sagittata*. Husa is not one of the Violaceæ, but a cryptogam allied to the mosses. Since Husa was first mentioned by the *New York Medical Journal*, Dr. Winthrop, of Fort Worth, who has described the remedy, has been deluged with communications of all kinds concerning it. He has promised to tell what he knows in a communication to be shortly made public.

The Physical Unfitness of the Volunteers.

The examinations to which the volunteers have had to submit before being mustered in the national service have revealed the fact that a large number of young men who had been supposed to have been in perfect health have not been so. In some military organizations the rejections have exceeded the number of those accepted. It is to be hoped that accurate statistics are being collected dealing with this matter. It is highly desirable that we should know whether it is the bicycle, the cigarette, or modern tendencies generally which are responsible for this amount of shortcoming. The charge that the race is undergoing physical decadence is impossible of belief, unless it be substantiated by fuller evidence than we now possess.

ITEMS AND NOTES.

GERMANY now wants a department of health.

THERE are 4025 medical students in New York.

THE University of Vienna was founded in 1365.

THE Paris Academy of Sciences is studying the question of the propagation of tuberculosis.

THE Surgeon-General of the Army has decided not to take any women nurses to Cuba.

A BILL was recently introduced in the German Reichstag making the communication of venereal disease a crime.

IN Scotland last year there were 128,823 births and 79,061 deaths — an excess of 49,762 births over deaths.

THE University of Paris has been empowered to borrow $340,000 for the purpose of building new laboratories.

SURGEON-GENERAL STERNBERG will appoint for the Cuban invasion army physicians who are immune to yellow fever.

VACCINATION is not compulsory in France, and since 1870 more than 20,000 people have died in Paris from smallpox.

ONE thousand five hundred and twenty-one medical books were published in Leipzig in 1897, and 1545 in 1896.

A GERMAN immigrant family was recently sent back from Baltimore because some of the children had favus.

A SANITARIUM for the British soldiery at Pundi Kolat in the Khyber Pass is being contemplated by the English Government.

APPENDICITIS is said to be rare in Japan; the relative immunity from this disease has been ascribed to the fact that the Japanese live largely on a vegetable diet.

ADVANCE copies of the new British Pharmacopœia have been distributed to journals and a few individuals, and the work will probably be on sale in another fortnight.

THE Countess of Wisberg, wife of Prince Oscar of Sweden, is in London taking a course of training as a nurse, in order to help her husband in missionary work he has undertaken in Africa.

THE Catholic authorities at Rome have rendered a decision forbidding the practise of artificial impregnation, devised by Sims. The reasons for this prohibition are not stated in the decree.

Dr. Beausoliel, President of the Canadian Medical Association, has received from the French Government the decoration of Officer d'Académie, in recognition of his services to education.

M. Felix Faure, President of the French Republic, recently paid an unofficial visit to the Paris Ecole de Médecine. This is said to be the first time that the head of the State in France has done such a thing.

The lack of progress of medicine in Turkey is well known. It has been asserted recently that missionaries have frequently found people ill with smallpox neglected in order that the Divine will may have its own way.

Christmas (*Rep. de Pharm.*) has succeeded in obtaining through the medium of the goat a serum which will prevent in smaller animals gonorrheic infection. He hopes to make this antitoxin applicable to man.

In the Crimean War 63.5 per cent. of the amputations proved fatal. Antiseptic surgery has reduced the fatality so that in our Civil War only 48.1 per cent. proved fatal, and in the year 1890 the mortality had been reduced to 6.9 per cent.

It is anticipated that Prof. Robt. Koch, at present in Dar-es-Salem, would have completed his studies about the end of April and that he would then leave German East Africa and proceed to Berlin, where he is expected to arrive during the present month.

The next meeting of the French Medical Congress will be held at Lille in August, 1899, under the presidency of Professor Grasset, of Montpellier. The subjects proposed for discussion are: (1) Myocarditis; (2) Adenitis and Leucemia; (3) Acquired Tolerance of Drugs.

Madame Henriette Rubbers *née* Bay died recently at Constantinople. Madame Rubbers, who had reached a very advanced age, for many years taught midwifery in the Imperial School of Medicine, Constantinople, and was midwife-in-ordinary to the Sultan's harem.

Mohammedans in Algiers refuse to be vaccinated until the religious authorities issue a declaration affirming that the procedure is not forbidden by the Koran. Preventive inoculation having been introduced by the Arabs, this is a strange relapse into darkness.

The attendance at the late Congress of Demography in Madrid was about two thousand. Of this number thirteen hundred and fifty were Spaniards, one hundred and ten French, fifty English, and as many Germans. There was but one member from Portugal, but the United States had two, and possibly more.

The Surgeon-General of the Army has placed with certain instrument-makers of New York City large orders for capital and minor operating-cases and other apparatus. One firm received an order for 950 probes and 500 field tourniquets. Adhesive plaster has been ordered up to nearly 4000 yards, and 2000 spools of antiseptic ligatures.

G. Kuss concludes from extensive research that the immense majority of cases of infantile tuberculosis are acquired after birth by inhaling the germs. The conclusion follows that the children of tuberculous parents should be removed at once after birth from all danger of contagion and brought up in an environment entirely free from tuberculous products.

A plan is being recommended by French physicians to cure colds by applying ice to the spine. Indeed, nowadays the curative value of cold is being highly spoken of, and the inflammatory sore throat which used to be treated with poultices and warmth is now said to be easily and quickly cured by sucking ice and keeping the patient in a low temperature.

The latest advices from the Klondike state that pneumonia and scurvy prevail to a very alarming extent at Dawson City, large numbers of the inhabitants being ill and many having died. It was expected that when the snow had disappeared, by the 1st of May, the danger to public health would be increased, owing to the wretched sanitary condition of the town.

A bill has been introduced into the New York Legislature, having for its object to allay the apprehensions of those hyper-nervous persons whose great dread is that of being buried alive. Among the precautions to be rendered compulsory on the attending physician, he will be required to certify that he has divided one or more arteries without any blood flowing therefrom.

The *Deutsche Medicinische Wochenschrift* of April 7 contains an account of four cases of extremely malignant lobular pneumonia in a family. The necropsy of one of the three fatal cases disclosed a mixed infection with the streptococcus and bacillus proteus. A parrot in the house was also affected, but no bacteriologic connection between it and the other cases could be established.

M. A. Norey (*American Veterinary Review*, May) records the case of two horses, which both had their tails amputated by a blacksmith with the same knife. Both horses had tetanus, and were treated with chloral, bromide, etc. One died on the fourth day; the other, being treated from the second day with daily injections of ten cubic centimeters of antitetanic serum, recovered in fifteen days.

The German poet Heine, during the eight years that he lay bedridden with a form of paralysis, read all the medical books which treated of his disease. "But," said he to some one who found him thus engaged, "what good this reading is to me I don't know, except that it will qualify me to give lectures in heaven on the ignorance of doctors on earth about diseases of the spinal marrow."

Epilepsy seems to be one of the chief infirmities of genius. Cæsar was an epileptic; Talleyrand is the authority for the statement that Napoleon had an epileptic fit at Strasburg just before the capitulation of the Austrian army; and Madden informs us that Byron had a number of slight attacks. Shakespeare makes frequent allusions to it, and Dickens gives a partial description of it in Walter Wilding.

It is reported that there have been two cases resembling yellow fever among the crew of one of the prizes recently captured by the Cuban blockading fleet. No fear is felt that the disease will be carried into the town, but it is thought that some isolated place will be designated for the detention of the captured vessels, where they will not be in close proximity to the other ships in Key West harbor.

A number of lepers in a Russian leprosorium recently attacked and flogged the superintending physician and were summoned to answer at the bar of justice for their criminal assault. But the court and jail officials objected decidedly to their presence and appealed to the higher courts, which decided the unprecedented affair by canceling the summons and leaving the matter to the administration of the institution.

Dr. Daniel H. Williams, of the Freedman's Hospital, Philadelphia, recently removed from the back of a patient, a young white farmer from Maryland, a monster fibrous tumor, said by Dr. Lamb, pathologist of the Army Medical Museum, to be the largest of its kind known to medical science. The tumor was on the small of the back, and hung down a foot or more, weighing between fifteen and twenty pounds. The tumor was of seven years' growth. The operation was successful.

After careful examination of a lung freshly removed from a man killed in Sing Sing prison, Dr. Thomas H. Manley concludes that death from the electric shock is vastly more agonizing than by either the rope or the guillotine. The fact is, he says, we have no proof that any power can instantly destroy all the processes of life, and hence common decency should require delay of autopsy for at least twenty-four hours after execution.

Much alarm has been caused by the spread of the bubonic plague at Hong Kong, Swatow, Canton, and Macao. Each of these cities except Canton has established a quarantine against the other plague cities. Hong Kong has cabled to Bombay for a supply of Haffkine's prophylactic lymph. Official reports place the new cases at Hong Kong at from twenty to thirty a day. Smallpox as well as plague prevails at Canton and Macao.

During the past year 33,490 tubes of antidiphtheritic serum were prepared at the State Serum Establishment in Vienna. Of these, 30,434 were sent out, 3215 were exchanged, and 284 were destroyed as having become unfit for use. A recent report by the Bohemian National Committee states the serum was in the course of the year used in 493 cases of diphtheria in thirty-one public hospitals. Of that number 401 were cured, a mortality of 18.6 per cent.

Chauveau recently demonstrated before the Paris Académie des Sciences that the general assumption in regard to the amount of calories produced by sugar is erroneous. Instead of the theoretic assertion that three grammes of sugar are equivalent to the nine calories produced by the consumption of one gramme of fat, only 0.756 gramme of sugar is required to produce this same amount of calories. He urged the repeal of duties which tend to restrict the use of sugar, contending that the people should be encouraged to use it more freely.

Exactly a hundred years ago Napoleon created an Egyptian Institute for discussing scientific questions relating to this country. Several papers bearing on medicine and sanitation were read by well-known army doctors, such as Desgenettes, Bruant, Savaresi, and Larrey. Eventually the Institute decayed, and was revived by French influence, since when it has been a French stronghold from which all but a few Egyptians and Italians were excluded. For some years there has been but one English member, and he was only elected after being blackballed three times. But now a compliment has just been paid to the English medical men in Egypt by the unsolicited election of Dr. Sandwith to a vacancy among the forty.

The *Montreal Pharmaceutical Journal* for May gives a description of the laughing-plant and its effects upon man. It grows in Arabia, and derives its name from the effects produced by eating its seeds. The plant is of moderate size, with bright-yellow flowers, and soft, velvety seed pods, each of which contains two or three seeds resembling small black beans. The natives of the district where the plant grows dry these seeds and reduce them to powder. A small dose of this powder has similar effects to those arising from the inhalation of laughing-gas. It causes the soberest person to dance, shout and laugh with the boisterous excitement of a madman, and to rush about cutting the most ridiculous capers for about an hour. At the expiration of this time exhaustion sets in, and the excited person falls asleep, to wake after several hours with no recollection whatever of his antics.

The pathology (shang-han) of the Chinese is very incomplete. All diseases, especially epidemic diseases, are ascribed to spirits and winds, and cold and warm humors, etc., are assigned in accordance with their benign or malign character to Yo (the good principle) or Yu (the evil principle). To Yo belongs acute inflammatory fever; to Yu, hectic fever, etc. There are, according to Chinese pathology, 10,000 varieties of fever. They imagine there is a distinct and different pulse in every part of the body. They "play upon" the pulses as is done in playing the piano, where we feel it. In this practise the changes of the moon and the season of the year are considered. The performance often lasts several hours in the "heavenly spot" (the upper part of the carotid artery), or on the "earthly spot" (near the ankle), or the "human spot" (at the wrist), with three fingers—sometimes on the right arm, sometimes on the left, now higher up, now lower down, now on one side, again on both sides, etc. The three fingers used are the index, the middle and the little finger. Deyuse, the index finger, indicates the spirits of the liver; Quan, the middle finger, the spleen; and Shaker, the little finger, indicates the heart. In diseases of the heart, the left pulse is investigated, in those of the liver the right. Each speck of the tongue and every discoloration of the organ points to special diseases and viscera. Thus, a red tongue indicates warmth of the heart, and the south; a white tongue, the lungs, and the west, etc.

NEW PUBLICATIONS.

ACCIDENT AND INJURY.

The author of this work has attempted something new in the way of medical manuals. He has attempted to systematize and classify the numerous facts of traumatism, and to deduce therefrom a coherent body of doctrine. The traumatic neuroses are sufficiently common to constitute a comprehensive department of internal medicine, and the legal prominence these disorders derive from being associated with questions of liability makes their importance paramount. The present work endeavors to assign the part that is properly played by injury and shock in the more important neuroses. The scheme of the work includes the methods of examining the patient for pre-existing nervous diseases as well as for the actual injury. In the first part are considered the organic effects of injury to the nervous system. In the second part the functional effects of injury are considered, and the nervous disorders which most frequently follow railway and allied accidents—in other words, traumatic neuroses. In the third part will be found some very useful remarks on malingering. The book concludes with the treatment of the traumatic neuroses. The work throughout is amply illustrated, and will prove a valuable one to the lawyer as well as the physician. The author is to be congratulated upon his clear descriptions and the commanding grasp of detail he has acquired in the consideration of his subject.

Accident and Injury: Their Relations to Diseases of the Nervous System. By Pierce Bailey, A.M., M.D. New York: D. Appleton & Co.

THE DISEASES OF THE STOMACH.

The increased attention which of recent years has been devoted to diseases of the stomach has led to the production of a considerable amount of literature dealing specifically with these troubles. The most recent addition to this department of medical literature consists in a work of much value from both scientific and practical standpoints. The complete diagnosis of a gastric disease is not a simple matter, and the authors of the present work describe in detail the many methods which modern science adopts for confirming doubtful points. The authors also lay down, in clear and precise terms, the uses and limitations to which instrumental technique can be applied for the elucidation of various pathological conditions of the gastric mucosa. This work will be found modern in tone and clinical in spirit, and will amply fulfil the requirements of the student or practitioner seeking for special information upon the subjects of which it treats.

The Diseases of the Stomach. By Wm. W. Van Valzah, A.M., M.D., and J. Douglas Nisbet, A.B., M.D. Illustrated. Price, $3.50 net. Philadelphia: W. B. Saunders, 1898.

BOLLINGER'S PATHOLOGICAL ANATOMY.

The second volume of Bollinger's Pathological Anatomy fully justifies the favorable verdict recorded for the first. The plates are simply superb, and illustrate in the most impressive manner the pathological conditions with which they deal. The present volume deals with the Urinary, Sexual and Nervous Apparatus, and the Diseases of Bones. As has been before stated, these atlases excel in beauty, accuracy and compactness anything which has heretofore been produced. They will be found unique in many characteristics, and will not disappoint the expectations of the most critical.

Atlas and Essentials of Pathological Anatomy. By Dr. O. Bollinger. Volume II. New York: Wm. Wood & Co.

THE MAN WHO OUTLIVED HIMSELF.

This is a story which possesses some amount of medical interest from the fact that the hero exhibits certain phases of double personality. The facts of psychology are not taken greater liberties with than is justified in fiction. The story is a good one and will be found readable.

The Man Who Outlived Himself. By Albion W. Tourgee, author of "A Fool's Errand, by One of the Fools." 16 mo. Cloth, ornamental, 75 cents. New York: Fords, Howard & Hulbert.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Primary Tuberculosis of the Rectum.

Straus publishes an interesting article on this subject in *Mathews' Quarterly Review* for January, 1898. He reaches the following conclusions:

1. That primary tuberculosis of the rectum is not so infrequent as some of the leading authorities have taught.

2. That it is a surgical disease as much as appendicitis.

3. That it is not and cannot be diagnosed by the clinical symptoms as given by the various writers on diseases of the rectum.

4. That the only scientific and correct way of making a diagnosis is by the use of the microscope.

5. That by thorough curettement, or excision, or both together, with cautery, it is not only cured but remains cured much more often than is dreamed of—certainly more often than the teaching of the authorities would make us believe.

6. That some of the apparently hopeless cases are cured by repeated operations.

7. That all suspicious cases should be submitted for microscopical examination for the reason that it is the only scientific method of arriving at a diagnosis.

8. That local treatment is not equal to curing these cases; permanent results are to be had by a radical destruction of the diseased tissue of the habitat of the tubercle bacilli.

9. That these cases are and have been cured, and that sufficient time has elapsed for us to conclude that they will remain cured.

10. That early and repeated operations, if need be, are imperative, if these cases are to be permanently cured.

Recurring Tetanus.

Recently in Vienna, at the Medical Club, Pinales demonstrated a case of recurring tetanus in a female aged thirty-seven, who twenty years ago, during winter, was confined to bed with typhoid fever for eight weeks. During this illness the spastic cramps subsided until the fever passed away. In February of the following year the cramps returned, but disappeared in a few weeks. Since that time, up to the present, these cramps have returned annually between the months of January and March, attacking both arms and sometimes the muscles of the eyes. Fourteen years ago diarrhea commenced, which has also repeated itself with a spotted exanthem of the extensor aspects of the limbs, both upper and lower. It never appeared during the warm weather, while she was in the gravid condition, or during lactation. About a month before the onset of the tetanus she suffered from a catarrhal affection

of the stomach and intestines without pain, followed a few days later by motor paresthesia and slight fever. The origin of the lesion in this case, judging from the history, would seem to be associated with the attack of typhoid, and to be of an infective nature, lying dormant during the warm seasons but appearing in the cold with a prodroma of the diarrhea, etc. Pinales gave it as his opinion that many of the so-called idiopathic tetanus attacks arose from similar affections of the intestines and stomach.

MEDICINE.

Autointoxication from Exercise.

Methodical physical exercise, says the *Medical Press and Circular* of April 6, is unquestionably a powerful factor in the maintenance of robust health, but it is not every one who is physically capable of deriving the benefit which rewards the efforts of the normal physiologically healthy individual. The emunctory organs require careful training before they become fitted for the perfect elimination of the poisonous products of active tissue change engendered by prolonged muscular exertion. The blood becomes charged with these products, and their presence manifests itself by disturbed rest. When the exhilarated amateur athlete seeks recuperation in slumber he experiences fatigue on the morrow. There is, perhaps, no kind of physical exercise in which greater temptation exists to overstrain of this kind than in cycling. Experience shows that serious physiological and visceral disturbance may be caused without anything of the nature of muscular fatigue to put the cyclist on his guard. Moreover, the effects of this variety of autointoxication are enhanced by the fact that the appetite is increased; and at a time when the body, as a whole, is more or less jaded, the stomach is called upon to discharge an unusually large amount of work. As it is for the time being unequal to the duty thrust upon it, the food is but partially digested and fails to undergo complete oxidation, thus further surcharging the overladen emunctories. Owing to the exaggerated excretion of water through the skin in the form of perspiration the kidneys do not receive sufficient fluid to flush their tubular apparatus, which consequently becomes clogged. For the same reason there is a tendency to constipation. The nervous excitement which is associated with this form of prolonged exercise does not subside the moment the exercise is discontinued, and finds vent at night in the spasmodic jerks of the limbs with which cyclists are all familiar, much to their discomfort. The rational treatment of this condition is simple enough and adds materially to the comfort as well as to the well-being of the cyclist. On arriving at his destination the first thing to think of is a hot bath, which reduces the excitability of the muscular system and assists the skin and other organs in getting rid of their arrears of work. This, moreover, affords an interval of rest which fits the stomach for its work, but even then the first meal after a ride ought not to be too copious. The food should be light and digestible, and alcoholic beverages should be taken only in strict moderation in order not to add one more straw to the proverbial camel's back. A sufficient interval should be allowed before retiring to rest,

and a short stroll in the open air will accelerate digestion and avert troubled slumbers. Women, for obvious reasons, are more susceptible to these disturbances than men, and should be correspondingly prudent. When touring cyclists generally will derive great benefit if they avail themselves of the first half day's break in the journey to take a mild purgative, preferably of the saline type, the better to "clear the decks for action."

The New Treatment of Pneumonia with De Renzi's Serum.

Dr. Antonio Fanoni, in the *New York Medical Journal* of May 7, says all those interested in medical science, especially in the recent application of serum therapy, have probably noticed the accounts, lately published in the American papers, of the discovery made by Professor De Renzi and Professor Pane, of the Royal University of Naples, of a serum for curing pneumonia.

Professor Pane inoculated various animals with pneumonia bacilli, and from them he obtained large quantities of a powerful serum. After a great number of experiments, he submitted the serum to the Medical and Surgical Academy of Naples to be tested. Several members of the Academy were selected to try and report upon it. After severe tests they found that the serum gave even better results than those modestly claimed for it by Professor Pane. Afterwards experiments on men were undertaken, to establish the absolute innocuousness of the serum. Two hundred cubic centimeters of the serum were injected in some cases in twenty-four hours without any inconvenience. In the year 1894 to 1895 two patients suffering from pneumonia were admitted to Professor De Renzi's clinic, and were treated with the serum with excellent results. In the year 1895 to 1896 fourteen patients were treated with the serum, and only one died. This year two patients have been subjected to the serum treatment, and cured. In all, there were thirty-two patients treated with this serum, twenty-nine of whom were cured, and only three died. Regarding the latter, autopsies were made revealing the existence of other fatal maladies, and they would probably have been saved had they been seen at an earlier date.

The serum treatment increases the strength and rapidly diminishes the fever to such an extent that in some of the cases observed no fever existed after the third day.

Dr. Fanoni thinks that De Renzi's serum is an agent of undoubted efficacy, and that it is indicated in all diseases caused by Fraenkl's bacillus, namely, epidemic cerebro-spinal meningitis, pleurisy, pericarditis, peritonitis, and pneumonia.

THERAPEUTICS.

A New Remedy for Syphilis.

A new remedy for syphilis has been discovered by Lalande. It is a product of reaction between sodium chloride and organic matter rich in keratin. For its preparation Lalande uses the partially developed horns of calves, as they contain large quantities of keratin. The horny substance is powdered

immediately after killing the animal, and macerated with a solution of sodium chloride (powdered horn 6 parts, salt 1 part, water 100 parts) for thirty days at 25° to 30° C., with occasional shaking. The insoluble matter is then allowed to settle during four months in a dark place, the clear solution drawn off and heated in a tightly closed vessel at 90° C. for one-half hour. After cooling the solution is ready for use. It has a yellow color and contains per liter: Glue, 5.3 Gm.; sodium chloride, 8.37 Gm.; calcium phosphate, 0.3 Gm.; calcium sulphate, 0.03 Gm.; potassium sulphate, traces. The remedy is used hypodermically and has given such encouraging results during two years of practise as to justify its publication. Improvement is noticeable after the third injection. After ten to thirty doses all symptoms cease and do not reappear on discontinuation of the remedy. Upon what properties the remedial action rests is not stated.

Nosophene and Antinosine in Treatment of Genito-urinary and Venereal Diseases.

Dr. C. A. Dundore, in the *New York Medical Journal* of April 23, says nosophene is obtained by the action of iodine upon phenolphthalin in solution. It is a tasteless, odorless, grayish-yellow powder, and contains 61.7 per cent. of iodine; it melts at 255° C., evolving iodine vapor, and is insoluble in water and acids, and very slightly soluble in alcohol, ether, and chloroform. Owing to its acid character it forms salts with various bases; its sodium salt, called antinosine, is a blue powder, very freely soluble in water, forming a blue solution.

As a cicatrizant, nosophene is vastly superior to all other agents used heretofore. Its germicidal action has been proven. It promotes granulation, this effect being due to the large amount of iodine entering into its composition. Antinosine in solution has the same effect on inflamed catarrhal and suppurating surfaces that nosophene has as a powder; it paralyzes and prevents the escape of leucocytes from the vessels of wounds and irritated tissues without disturbing the circulation, and checks pus formation and accelerates the reparative process.

Venereal ulcers, specific and non-specific urethritis, progress rapidly and favorably under its use.

Geosote.

Geosote is a valerianate of guaiacol, and closely related to eosote, the valerianate of creosote. It is a yellow, oily liquid, soluble with difficulty in alcohol, ether, or chloroform. It is given internally in capsules containing three grains. It has a particular influence on all mucous membranes, checking increased secretion. It has been found valuable in the treatment of diarrhea, and also in bronchial affections in which the expectoration has not yielded to the administration of iodides. It is recommended for diseases of the respiratory organs in children. Rieck considers it a remedy *par excellence* for pulmonary tuberculosis. He used it in seventy-six cases, and he claims that no fewer than thirty-one were cured and thirty-two were improved by its use. He states that the special action of geosote is to cause diminution of the

tuberculous process and encapsulement of its products. In surgical cases its effects are said to be very striking. If all that is said for it be true, geosote will be a valuable addition to the materia medica.

Orthoform.

Kallenberger (*Berlin Klin. Woch.*, March 21, 1898) reports his experience of orthoform in surgical practise. It is a fine, white, non-hygroscopic powder, having the following properties: (1) A local anesthetic wherever sensory nerve endings are exposed; (2) it is non-poisonous, so that large quantities can be used upon raw surfaces; (3) it is powerfully antiseptic. The uses of orthoform are many. It is convenient for local use in fresh wounds and burns, in ulcers of the legs, in carcinomatous ulcers, in syphilitic ulcers, and in toothache in which nerve endings are exposed. All pain usually disappears in from three to five minutes after its use, and immunity to pain lasts on an average for thirty-five hours. If exudation be very abundant, an ointment can be used instead of the powder. Orthoform has been used internally in laryngeal ulcers, and also in gastric ulcers and carcinoma. It appears that orthoform is likely to be a very valuable addition to surgical and internal antiseptics.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,
Microscopist to Harper Hospital, Detroit.

Typhoid Germs Transmitted by the Atmosphere.

According to the *Journal d' Hygiène*, says the *British Medical Journal*, recent experiments have proved that the typhoid germ can be transmitted by the atmosphere. The germ preserves its vitality a considerable time, not only in damp surroundings, but in others apparently dry, such as linen, wood, earth, dirt, and refuse. By the process of desiccation the greater part of the bacilli perish. A few, however, escape, and these may become a source of danger, not only by being transmitted by the surrounding air, but also because imperceptible fragments containing them, by being brought into contact with the buccal mucous membrane, from fingers, food, etc., produce infection.

The Power of Resistance in the Rabbit Sober and the Rabbit Drunk.

Dr. Thomas, of Strasburg, published some years ago the results of giving rabbits alcohol and then inoculating them with comma bacilli. He found that the quantity required to kill an alcoholic rabbit was one-sixth of that necessary to finish a *sober* rabbit. In what manner the bactericidal resistance of the blood was lessened naturally led Dr. Thomas to undertake some experiments to determine the action of narcotics upon the constituents of the blood. These he has lately published in the *Archiv für Experimentelle Pathologie* of March 17, 1898.

In acute alcoholic intoxication the alkalescence of the blood was reduced

in some cases one-half. It seems therefore that during alcohol narcosis there is an acid which supplants to a greater or lesser extent the CO_2. The author believes it to be a volatile fatty acid; its exact nature he could not determine. In some cases the red blood-corpuscles were diminished, but this was not a constant factor. After subcutaneous injections of ether, morphine and chloroform the amount of oxygen in the blood was lessened, but the CO_2 and alkalescence remained very little unchanged. After inhalation of ether the CO_2 was increased, the oxygen lessened, and the alkalescence not changed; while the number of red blood-corpuscles was apparently doubled. The explanation is that the supply of air was shut off by the inhalation mask and the arterial blood became venous and thickened in character.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,
Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

Bacteriology of Chronic Endometritis.

Dr. James P. Warbasse, of Buffalo, N. Y. (*Philadelphia Medical Journal*, April), who has recently made a careful study of the bacteriology of chronic endometritis, concludes that the healthy vagina has the power of destroying ordinary pathogenic bacteria, and when the organisms are introduced from without they perish in a few hours or days. An exception is the gonococcus of Neisser, which is capable of multiplying in the vaginal secretion; and certain other less common organisms, which do not enter into the etiology of ordinary chronic endometritis. From the study of a large number of sections of uteri, the seat of chronic endometritis, Warbasse is convinced that it is no more necessary to seek for a microbic origin in chronic endometritis than in chronic degeneration of any of the glandular organs. The glandular portion of the uterus is made up of secreting epithelial cells, resting upon a connective tissue stroma, just as on the kidney, the liver, or the breast. Either of these elements may become changed or increased through irritative or trophic disturbances, without the presence of bacteria.

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D.,
Attending Neurologist, Harper Hospital.

The Relationship of Migraine to Epilepsy.

This subject is interestingly discussed in the *American Journal of the Medical Sciences* for April by Rachford, who, after briefly reviewing our conceptions of the two conditions, points out that we as yet know practically nothing of the pathology of migraine, except (1) that the sensory neurons of the cerebral cortex seem to play *some* rôle, and (2) that various reflex irritations, while they seem to be the exciting, are not necessarily the essential, cause of such attacks.

A series of studies has proved to Dr. Rachford's satisfaction that an excessive secretion of paraxanthin in the urine has been an accompaniment of many severe migrainous attacks, and that "it is an all-important factor in the production of true migraine." In normal urine he has failed to demonstrate the presence of paraxanthin (a leucomaine of the uric acid group), but out of samples of urine excreted during migrainous attacks, from more than fifty patients, in but few has he failed to find the poisonous leucomaine present. Pursuing his studies further, he has been able to produce an experimental paraxanthin poisoning in animals with many of the objective symptoms of patients suffering from migraine, *e.g.*, nervous irritability, increase of reflexes, and late narcotism.

As to the pathology of epilepsy, literature is well agreed that the prime factor is some irritation of motor neurons and that this may be chemical, mechanical or reflex in character. The two latter types are here excluded as not closely related to migraine. We are therefore here confined to the toxic type of epilepsy.

Careful studies have shown that epilepsy *per se* does not produce an excretion of paraxanthin, as it cannot be demonstrated at the time of attacks in the urine of those epileptics who are sufferers from focal or reflex epilepsy, but toxic epilepsy the author believes is largely paraxanthin epilepsy, in these cases excess of paraxanthin in the urine being easily demonstrable. This type of epilepsy occurs, as a rule, about middle life, and always in patients who have been sufferers from migraine earlier in life. From a quart of urine, passed after an attack, he has been able to separate enough paraxanthin to kill several mice and a large guinea-pig, producing in the guinea-pig many of the clinical symptoms of a severe epileptic attack. Why paraxanthin produces epilepsy in one patient and migraine in another is not yet known.

Paraxanthin poisoning is doubtless closely allied to those processes which ultimately bring about a condition of arteriosclerosis, the final complications of which are so many and multiform.

The Work of a Distinguished Neurologist.

B. Sachs in the *Medical News* of May 7 interestingly reviews the invaluable work of the late Dr. Seguin, calling especial attention to his scholarly work as clinician and therapeutist. He not only had great faith in drugs, but urged their use up to physiological limits. He had the greatest faith in the value of galvanism and faradism as remedial agents, and steadfastly adhered to this belief.

Especially valuable and able were his lectures upon Aphasia, Cortical Localization, The General Therapeutics of the Nervous System, and (1877) The Use and Abuse of the Bromides. In the latter he declared that "epilepsy is the only disease in the cure of which we are justified in deliberately producing bromism," and he scored the all too common blind use of the bromides for anything and everything.

He was a persistent advocate of the use of the iodides, where indicated,

in large doses, yet he was not an erratic enthusiast in any special plan of treatment.

No one who ever heard this eminent man lecture can easily forget the inevitable impression that he was listening to a deep and thoughtful scholar, a leader in his special work.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Primary Syphilitic Infection of the Tonsil.

Dr. Root has reported such a case in a man who had had reasonably good health up to an attack of gonorrheal rheumatism in the spring of 1894. During March and April of 1896 the patient contracted a cold which affected the tonsil. The next month the same tonsil again troubled him, and it became painful and inflamed in June. At this time the man noticed a few blotches on the abdomen. When seen two weeks later, the tonsil was the seat of a grayish ulcer, and the submaxillary glands were enlarged. The patient was given the protoiodide of mercury and a saturated solution of iodide of potassium. The throat was kept in good condition by local applications, and at the time of reporting the general and local conditions were good. In commenting upon the case the speaker said that after a careful investigation he had come to the conclusion that the lesion was probably the result of kissing.

Asked why he had given iodide of potassium so early in the treatment, the reporter stated that he did not believe in the division of syphilis into primary, secondary, and tertiary, the line of demarcation being too vague. In a general way he approved of using iodide of potassium in the later stages chiefly.—*Journal de Laryngologie.*

Intratracheal Injections.

In an article on Inflammations, before the American Laryngological Association, Dr. Thompson states that by intratracheal injections we get the direct action of the remedy on the diseased area. There were many proofs that tracheal injections were speedily absorbed, and they had the advantage of not being changed by the digestive processes as they were when taken into the stomach. The cure of a bronchitis by such direct medication, without interfering with digestion or appetite, was a distinct advance in therapeutics. In tuberculosis there was a mixed infection—a secondary infection with the germs of suppuration. A little menthol injected into a trachea would give greater and more prolonged relief than a large dose of morphine given by mouth. The remedies should be soluble in the vehicle employed, the solutions should not be very irritating, and the drugs so used should be capable of volatilizing slowly at the temperature of the body. He had first become convinced of the great value of this method by observing its excellent results in pulmonary tuberculosis and chronic bronchitis. Where the remedies were not irritating it was not necessary to use cocaine previously. He used from one drachm to four drachms at a sitting, and ordinarily there was but little coughing or strangling.—*Journal de Laryngologie.*

PEDIATRICS.

UNDER THE DIRECTION OF CHARLES G. JENNINGS, M.D.,
Professor of Practise of Medicine and Clinical Diseases of Children, Detroit College of Medicine.

Mental and Moral Pains of Childhood.

In a lecture recently delivered by Mr. John Adams under the auspices of the Dundee Society for the Prevention of Cruelty to Children, the lecturer laid it down that pain is often a legitimate instrument in education. He endeavored to show that the child and the adult are essentially different, a boy being no more a little man than a grub is a little butterfly or a tadpole a little frog. He proceeded to show that the faculties do not develop equally all along the line; that memory and imagination are developed more rapidly than reasoning. In a man's dreams, for instance, the imagination and the memory have full play, while the reasoning is either very feeble or absent altogether. He pointed out that there is the same difference between a man's mind and a child's as between a man's every-day thoughts and his dreams. This is hardly the moment to discuss these statements *seriatim*, though they are more or less erroneous. We must, however, demur to the statement that memory and imagination are always developed much more rapidly than reasoning. Memory is sometimes, in our experience, very much retarded, as every schoolmaster must know. The comparison of a man's sleeping and waking mental states does not give the essential difference between a man and a child, because when a man dreams, his dreams are constructions from adult as well as youthful experience, while a child cannot anticipate the adult experience. If the child's mind finds a difficulty in making its ideas conform to the facts of the outside world, there arises friction, and this friction makes itself felt as mental pain. We are told that if circumstances occur in which the child cannot apply the law of causality, mental pain arises. The moon hanging high up in the sky is a mental pain to many a child. A further illustration of mental pain which the lecturer gave was this: A mental pain is relieved every time a drum is cut open for the purpose of research, even though a new mental pain is at once substituted. Pains also result from the feeling of injustice, from the discrepancy between the moral idea and the moral attainment, and from the discrepancy between the theory and practise of their elders. These are some of the salient points of a lecture which was extremely interesting and of practical value to all interested in mental development, and especially to medical men and educationists.—*Medical Press and Circular.*

Infant Feeding.

Dr. C. M. Carlan, in a very interesting article in the *Northwestern Lancet* of April 15, says infants may be fed by one of four methods: (1) From the mother's breast; (2) from the breast of a wet-nurse; (3) by the method known as mixed feeding; (4) from a bottle (artificial or hand feeding).

Maternal breast feeding is the most desirable, as it is the natural one, and every mother whose health permits should nourish her child solely from the breast until it is eight months old, provided her mammary function is equal

to the demand, and partially from that time until the end of the first year. Unfortunately, this method of feeding is not always possible or advisable, and should not be allowed where tuberculosis, chorea, epilepsy, syphilis, marked anemia, or a faulty development of the mammary function exists.

The method of wet-nursing an infant is not now so common as formerly. Its advantage is that the natural feeding is continued which, in some children, cannot be discarded if their lives are to be saved. In the majority of cases, however, careful bottle feeding is preferable. It is by no means so essential as has been generally supposed that the child of the wet-nurse shall be of about the same age as the child she is about to nurse. It has been shown that after the first month the change in the composition of the milk is insignificant. It is, however, desirable that she shall have nursed her own infant long enough to demonstrate her ability to nourish a child.

Mixed feeding is a combination of breast and artificial feeding. It is valuable when the mother is weak or when her milk supply is insufficient. Two or three feedings daily from a bottle are usually given.

Artificial feeding is always a difficult problem, and to insure success with cow's milk, it is necessary to take into consideration: (1) The modification of cow's milk, so as to make it closely approximate woman's milk in its chemical and physical properties; (2) the distinction of pathogenic and non-pathogenic germs by which milk may be contaminated; (3) the recognition and appreciation of the various derangements in the child, which denote an improper proportion of the different milk elements.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

Dental Irritation a Cause of Earache.

F. T. Rogers (*Atlantic Medical Weekly*) states that in some cases free lancing of the gums gives immediate relief from earache in children, thus showing the relation of earache to first dentition. The author also mentions that frequently in tubercular children eczema of the auricle and circumscribed inflammation of the external ear and auditory canal are often aggravated or caused by decayed teeth or defective dentition, and are relieved by proper attention to this defect.

Trachoma in Japan.

According to Onisi (*Centralblatt für Augenheilkunde*) trachoma makes up twenty-five per cent. of all the eye diseases in Japan. It attacks patients of any age, but is most frequent between the ages of fifteen and thirty.

THE MEDICAL AGE

VOL. XVI. DETROIT, JUNE 25, 1898. No. 12.

ORIGINAL CONTRIBUTIONS.

THE PAST HISTORY, MODERN CARE, AND TREATMENT OF THE INSANE.

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HISTORY OF THE INSANE.

In order to form an intelligent opinion in relation to the past condition of the insane, it will be necessary to review briefly the different steps through which evolved our present advanced system of caring for them. The history of insanity viewed as a whole includes four distinct epochs: The first period is that of ignorance and superstition, which existed prior to any medical ideas and in which insanity was considered as coming from the gods and its treatment confided to the priests; it extended from the beginning of the world down to the time of Hippocrates, who marks the advent of a new era and from which date medicine properly began. The second period is the classic medical epoch, which starts from Hippocrates and ends with the Roman decadence, after having passed through the Hippocratic, Alexandrian and Greco-Roman period. The third epoch includes the Middle Ages and the Renaissance; it extends from the commencement of the Christian era to the end of the eighteenth century—that is, from the days of Galen down to the days of Pinel. The fourth or modern epoch is that scientific period *par excellence* which commences with Pinel—that is, from the great and memorable reform of 1793, and which was continued by Esquirol and his followers.

Galen (A.D. 150), the celebrated physician of Pergamus, who wrote five hundred memoirs and whose ideas had an immense influence on his own times, and retained it during the following fourteen centuries, gave a little attention to the subject of mental alienation. The leading point in his writings in this regard is the division he made between idiopathic insanity and sympathetic insanity, or insanity by consensus, and the importance he accords the latter in his descriptions.

After Galen, everything fell into obscurity and confusion. Alexander of Tralles (A.D. 560) and Paul of Egina (A.D. 620) brought out nothing new in regard to insanity; and the Arab physicians Avicenna and Rhazes (tenth century) confined themselves to developing the idea of Galen as to insanity by consensus, the seat of which they placed in the different viscera, especially in the liver and spleen.

The third epoch, or during the Middle Ages, the study of insanity was entirely lost sight of—the belief in demons dominated all imaginations, superstition was prevalent; it was the reign of sorcery, witchcraft, and demoniac possessions.

The fourth or modern epoch ushered in Phillip Pinel in 1775. Pinel succeeded in perfecting a general movement in favor of the insane. For bad treatment, brutal blows, and chains, he substituted wisely combined methods of repression. He demonstrated the necessity of creating special establishments for the insane, and pointed out the principles that ought to cover their construction, their organization, and management. He showed that the insane should be separated into distinct quarters, according to the need of their mental diseases; also drew up the first rules for the hospitalization of the insane, and established the necessity of supervision by physicians. Such, in substance, was the work of reform instituted by Pinel. It was about this time that other reformers sprang up, some in Italy and some in England. A name which is well known at the present time is that of William Fuke, a Quaker, who influenced his coreligionists and formed a society, known in history as the Society of Friends, who constructed what is known as the York Retreat, which became the starting-point of the successive improvements in the care of the insane in England. But Pinel was not only a reformer; he was also a man of science. Bringing together all the clinical and therapeutical observations he had made in regard to the insane, he published, under the title of "Traite de la Maine," a work of which the renowned Cuvier said that "it was not only a medical work, but also a masterly work on philosophy and even morals." It had a great success, and has ever since been celebrated. Pinel described four species of insanity—mania, melancholia, dementia, and idiocy.

In France Esquirol succeeded Pinel, and his work was as important in its influence on mental medicine as that of Pinel. As a philanthropist and reformer he continued the work of Pinel, contributed to the construction and organization of numerous asylums, of which he himself drew up the plans, improving more and more the condition of the insane; and finally prepared the way, by his travels and writings, for the movement that ended in the famous law of 1838, which has been of so great service. He also drew up admirable tables of the principal forms of insanity, to which he added monomania, and finally suspected the existence of general paralysis. As a teacher he formed and directed a magnificent constellation of students, so brilliant and numerous that discoveries accumulated, and mental medicine has never made so great progress within so short a time. His students have sent out general ideas on mental diseases, and at the present time we have from among them Morel, who has written extensively on degeneration, hereditary insanity, and etiological classification, and who also was the introducer into France of the system of non-restraint, recommended in England by Gardiner Hill and Conolly.

There are many other names that go to make up the constellation and bring us to the present time; among them the name of Rush stands out in bold relief for his kind, intelligent and scientific treatment of the insane in this country.

DOROTHY DIX.

On April 4, 1802, in the State of Maine, there was born an infant who afterwards became one of the greatest benefactors that America has ever produced—like the Grecian monuments, towering high above the rest, and admired by all familiar with her life's work. I refer to Dorothy Dix. There was nothing very striking in her early life, except that she was very frail physically, and in her early years had to support not only herself but her two younger brothers, which she did heroically. By her own efforts she secured a liberal education and taught school for seven years, until her health entirely gave out, when she was compelled to abandon her work and her old home for a different climate, by the advice of her physician. After an extended visit in the tropics, she returned to Boston and for some years taught a select school, until the spring of 1836, when, entirely broken down with hemorrhages, pain, and exhaustion, she was compelled again to give up her loved labor of teaching, at the age of thirty-three. No one ever dreamed at this time that this frail woman, by her own individuality and personality, would sweep irresistibly before her the legislatures of more than twenty great States of the Union, and by her indomitable will and magnetic influence carry as if by storm the Senate and House of Representatives of the Federal Congress at Washington; and in Europe win like triumphs in the British Parliament, and also revolutionize the lunacy laws of Scotland.

Her First Work in Behalf of the Insane.—On March 28, 1841, Miss Dix was first brought face to face with the deplorable condition of the insane which prevailed in the jails and almshouses of Massachusetts. It is recorded of her that, coming out of church one Sunday morning, she overheard two gentlemen speaking in such terms of indignation and horror of the treatment to which the prisoners and lunatics in East Cambridge jail were subjected that she resolved to go and see for herself. She found among the prisoners a few insane persons, with whom she talked; she noticed that there was no stove in the room and no method of warmth; the jailer said it was not necessary, although the thermometer frequently went down to zero and below. At this time the Court was in session, and she called their attention to the condition of their jail. The room was soon warmed and other improvements made, this being the commencement of her life-work in behalf of the helpless insane.

The same condition, or even worse, was found throughout the State of Massachusetts—crowding filthy criminals and insane together like so many cattle. The question which then presented itself to Miss Dix was: "Is the condition as exemplified in Massachusetts the same in other States?" And to the solution of this important question she devoted the next two years, notebook in hand, and at her own expense, devoting all her time; she visited every jail in Massachusetts and gathered a mass of information and eye-witnesses to conditions which were truly appalling, and, armed with this information, she resolved to memorialize the Legislature:

GENTLEMEN: . . . About two years since, leisure afforded opportunity and duty prompted me to visit several prisons and almshouses in the vicinity of the metropolis. . . . Every investigation has given depth to the conviction that it is only by decided, prompt and vigorous legislation that the evils to which I refer, and which I shall proceed to more fully illustrate, can be remedied.

I shall be obliged to speak with great plainness, and to reveal many things revolting to the taste, and from which my woman's nature shrinks with peculiar sensitiveness. But truth is the highest consideration. *I tell what I have seen*, painful and shocking as the details often are, and from them you may feel more deeply the imperative obligation which lies upon you to prevent the possibility of a repetition or continuance of such outrages upon humanity. If my pictures are displeasing, coarse, or severe, my subjects, it must be recollected, offer no tranquil, refining or composing features. The condition of human beings reduced to the extremest state of degradation and misery cannot be exhibited in softened language, or adorn a polished page.

I proceed, gentlemen, briefly to call your attention to the *present* state of insane persons confined within this Commonwealth, in *cages, closets, cellars, stalls, pens; chained, naked, beaten with rods, and lashed into obedience!*

Page after page, the memorial then goes on to recite the details of a long catalogue of horrors. They do not furnish pleasing reading, but if the life-work of Miss Dix is to be duly appreciated, it is necessary to brace the nerves and go through with some of them. The following are a few examples:

"Newton. . . . Opening into this room only was the second, which was occupied by a woman, not old, and furiously mad. It contained a wooden bunk filled with filthy straw, the room itself a counterpart to the lodging-place. Inexpressibly disgusting and loathsome was all; but the inmate herself was even more horribly repelling. She rushed out, as far as the chains would allow, almost in a state of nudity, exposed to a dozen persons, and vociferating at the top of her voice, pouring forth such a flood of indecent language as might corrupt even Newgate. I entreated the man, who was still there, to go out and close the door. He refused; that was not *his place!* Sick, horror-struck, and almost incapable of retreating, I gained the outer air."

"Of the dangers and mischiefs sometimes following the location of insane persons in almshouses, I will record but one more example. In Worcester has for several years resided a young woman lunatic pauper, of decent life and respectable family. I have seen her as she usually appeared, listless and silent, almost or quite sunk into a state of dementia, sitting one amidst the family, 'but not of them.' A few weeks since, revisiting that almshouse, judge of my horror and amazement to see her negligently bearing in her arms a young infant, of which I was told she was the unconscious parent! Who was the father none could or would declare. Disqualified for the performance of maternal cares and duties, regarding the helpless little creature with a perplexed or indifferent air, she sat a silent, but oh! how eloquent, pleader for the protection of others of her neglected and outraged sex! Details of that black story would not strengthen the cause: needs it a weightier plea than the sight of that forlorn creature and her wailing infant? Poor little child, more than an orphan from birth, in this unfriendly world,—a demented mother, a father on whom the sun might blush or refuse to shine!"

Miss Dix closed her first memorable appeal to the Legislature of Massachusetts in the following striking sentences:

Men of Massachusetts, I beg, I implore, I demand, pity and protection for these of my suffering, outraged sex. Fathers, husbands, brothers, I would supplicate you for this boon—but what do I say? I dishonor you, divest you at once of Christianity and humanity, does this appeal imply distrust. . . . Here you will put away the cold, calculating spirit of selfishness and self-seeking, lay off the armor of local strife and political opposition; here and now, for once, forgetful of the earthly and perishable, come up to these halls and consecrate them with one heart and one mind to works of righteousness and just judgment. Gentlemen, I commit to you this sacred cause. Your action upon this subject will affect the present and future condition of hundreds and thousands. In this legislation, as in all things, may you exercise that wisdom which is the breath of the power of God.

Success of Memorial.—This memorial exploded like a bomb in the Legislature; it was carrying the war into Africa; it was not a local arraignment, but of a condition prevailing more or less in every township throughout the Commonwealth of Massachusetts. The public became aroused; she was made a target for the severest criticism; the newspapers scored her with angry articles. But the public soon found that in Miss Dix they had a mind of great compre-

hension and statesmanlike grasp to deal with. Her first victory was won in Massachusetts. From her own State she extended her labors to Rhode Island and Connecticut, and then to other States. At this time she mastered the whole question of insanity, its origin, stages, and development, its relation to the body and mind, treatment, legal and moral rights, and put herself abreast with the most advanced thought on the subject extant at the time.

An instance in the career of this celebrated woman illustrates the wonderful power she possessed. No one who has ever visited the Hospital for the Insane of the Army and Navy at Washington, D. C., but admires the beautiful grounds, and everybody concedes that it is an ideal spot for an asylum; situated at the junction of two broad rivers, the Potomac and East Branch, commanding a superb view of land and water, sloping on all sides from its highest elevation, which secures perfect drainage; and embracing within its limits a most varied charm of wood and pasture, seems to blend all the essential qualifications for a magnificent site for such a noble purpose.

In 1852 Congress made an appropriation founding an asylum for the insane of the Army and Navy. They voted twenty-five thousand dollars for the site. At this time the property where now stands this institution was owned by one man, and it had become endeared to him and his family through its exceptional beauty and situation, and under no consideration would the owner of the property part with it for less than forty thousand dollars. Dr. Mickel, who had the matter in charge, had exhausted every personal effort towards securing this ideal spot; he became discouraged, and after relinquishing his efforts went to see Miss Dix, and exclaimed, "There is nothing more to be done; we must give the matter up, and the finest site for a hospital in the world be lost." Miss Dix listened in her quiet way, and then replied, "We must try to see what can be done." She sought a personal interview with the owner of the property and so movingly did she reason with him to surrender, for the good of thousands of his suffering fellow creatures, that which was indeed so precious to him and his family, but to one household only, that her appeal proved irresistible, and he gave her his promise of the estate at the amount appropriated by Congress. The owner of the property afterwards wrote her a brief note, as follows:

WASHINGTON, D. C., Nov. 13, 1852.

DEAR MADAM—Since seeing you to-day, I have had no other opinion (and Mrs B. also) than that I must not stand between you and the beloved farm, regarding you, as I do, as the instrument in the hands of God to secure this very spot for the unfortunates whose best earthly friend you are, and believing sincerely that the Almighty's blessing will not rest on, nor abide with, those who may place obstacles in your way.

With Mrs. Blagden's and my own most friendly regards,

Very respectfully, your obedient servant,

THOMAS BLAGDEN.

War Record.—At the outbreak of the war Miss Dix entered the service of the United States in the capacity of a nurse and served heroically all through the war, and at the end, but before resuming her work in the interest of the insane, she collected in a quiet way among her friends eight thousand dollars, with which to erect a granite monument in the cemetery at Fortress Monroe, where are interred more than six thousand of our brave and loyal soldiers.

She was now well along in years and very feeble, having traveled from Nova Scotia to Texas, and from New York to San Francisco, even extending her labors across the waters. She arrived one cold winter's night at the Jersey State Asylum, which was constructed through her efforts, where she remained for five long years in a suffering and helpless condition, when death took place, thus ending the career of one of the most illustrious women and public benefactors that have lived during this century.

CARE OF THE INSANE.

The system of caring for the insane has undergone a revolution during the last two decades or less. It is recognized at the present time that nearly every case of insanity, of whatever form, is either dependent upon or is connected with some form of physical disease, in some part of the main organism; it may be the brain or the spinal cord, or some other organ equally as important. Even a slight nervous disease influences portions of the mind. Recognizing the quite well established fact at the present time that mental derangement is dependent upon pathologic conditions, the name of Insane or Lunatic *Asylum* has been changed in many of the States to the more acceptable title of *Hospital*, which is in keeping with the advancement made in the care and treatment of the insane.

Cottage System.—I might also speak of the cottage system. This system has many advantages over the old, colossal, lineal or kirk-bode system, which consists of one immense building, with no separation. The cottage system, as its name implies, as is being constructed at the Upper Peninsula Hospital for the Insane, is designed for a quadrangle of buildings, each building to hold about fifty patients, all the buildings to be connected by cloisters, so that one is enabled to pass from one building to another through these corridors. Some of the advantages named for the cottage system are:

1. That there can be better classification.

2. That there is less danger from fire; the buildings are only two stories high, and in case of fire escape is possible.

3. Better ventilation, etc.

Improvement in the Staff of Nurses and Attendants.— About fifteen years ago A. Campbell Clarke, M.D., of Scotland, traveled through this country, looking over our system of caring for the insane. At this time there were no training schools nor were courses of lectures given in any of the asylums for the insane in the United States. This eminent alienist recommended that training schools be established and courses given commensurate with the importance of the duties of attendants and nurses. Consequently, in 1882 Dr. Edward Cowles, superintendent of the McLean Hospital at Somerville, Mass., established the first training school in this country, and during the last decade very many hospitals for the insane have followed in the wake of Dr. Cowles. In 1893, at the International Conference of Charities, it was reported that nineteen institutions in eight different States had regular graduated courses of instruction for nurses and attendants, and five institutions in four different States had a course of lectures but no regular graduated course, and these numbers have decidedly increased since. In the majority of courses the field of study is quite broad, and is in connection with asylum work. Anatomy,

physiology, hygiene, general nursing, surgical nursing, obstetrical and gynecological nursing, mental physiology and pathology, including the management of the insane, emergencies, the principles of sanitation, sepsis and antisepsis, physical culture, massage, the preparation of special diet, cooking for the sick, and many other things too numerous to mention, and yet so necessary in preparing nurses and attendants for the responsible positions they occupy, are treated in a more or less exhaustive manner.

Present Treatment of the Insane.— The more progressive hospitals have consulting specialists—surgeons, ophthalmologists, neurologists, gynecologists, non-residents; and in not a few, resident pathologists. They also have splendid operating-rooms and pathological departments well equipped. The different forms of electricity have been utilized with not a little benefit in selected cases, with good prospects of the beneficial field being greatly increased in the near future—galvanic, faradic and static are each useful, according as they are indicated.

Hydrotherapy, in some form, is also useful. Of the shower baths, the Gegenstrom system as in use at the Utica State Hospital (N. Y.) is one of the best, if not really so, of any system shown in this country. The plunge as used at Kankakee, Ill., and other places, the Russian and Turkish and other methods of application, all have their votaries and all contribute, when intelligently employed, towards the recovery and comfort of many cases.

Chemical, as well as mechanical, restraint has been greatly lessened; the latter has been reduced to a minimum in nearly all well-managed hospitals and asylums of this country.

NEW YORK STATE CARE OF THE INSANE.

No history of the insane in this country, however tentative, would be complete without especial mention being made of the work of the New York State Commission in Lunacy, particularly in reference to the establishment of the Pathological Institute, which is located in the center of New York City, in the Metropolitan Building. Although this department was inaugurated early in 1896, there is probably no more complete pathological establishment in the United States, or in any of the European countries.

Original investigations in the subjects of pathological anatomy, psychology, anthropology, biology, physiological chemistry, bacteriology and comparative neurology are being pursued by competent scientists, at the head of whom is Dr. Ira Van Gieson, a pathologist of recognized ability in the sciences of neurology and psychiatry.

The language of Dr. Van Gieson is opportune: "There can be no gainsaying of the fact that if insanity be unveiled of its mysterious origin and course by clear and tangible scientific explanations of the nature of mental diseases, treatment will be transferred from an empirical to a rational basis and become more discerning, decisive, and efficacious."

Not only has the organization of this department placed New York State in the front rank of original investigation looking towards the origin and cause of insanity, but it gives a stimulus to every other State in the Union, and contributes to the relief of this unfortunate and pitiable class throughout the length and breadth of the land.

THE ABORTIVE TREATMENT OF TYPHOID FEVER.

BY E. C. PERRY, M.D., AVON, N. Y.

Previous to the year 1895 most medical writers denied the possibility of aborting or modifying the course of typhoid fever. Dr. Flint stated in his "Practice" that no known resource of therapeutics could arrest the progress of the disease. But about this date two German authorities, Wunderlich and Liebermeister, advanced the claim that typhoid could be aborted by large doses of calomel early in the disease. More recently Dr. Thistle, of London, advocates the antiseptic and eliminative treatment for aborting the disease; and Dr. Woodbridge, of Cleveland, makes the more extravagant claim that even where typhoid is not arrested by his treatment every case can still be led to a favorable termination.

So great has been the advance in the treatment of this fever, and recent literature so teems with the favorable results, that the following incident seems quite incredible: During the progress of a lawsuit, for the recovery of value for medical services rendered, held within Livingston County, New York, the past year, an elderly physician called by the defense stated that "there was no such thing as breaking up typhoid fever; if you had it, you had it, and if you did not have it, you did not have it." On the contrary, when one is threatened with a run of typhoid fever—in other words, when one is in the prodromic or incipient stage, before all the symptoms belonging to later stages have developed—then is the time when the abortive treatment is most effective. But even when all the symptoms belonging to the second week have set in, it is not too late to abort the disease, and quite easy to modify its course in a large majority of the cases should one fail to abort it. Ten years ago authorities stated that of all therapeutical measures, those directed towards reducing the temperature took first rank. To-day we have learned that the reduction of the fever *per se* affects the mortality but little. Recognizing the Peyer's patches in the intestinal walls as the chief seat of the lesion, although the bacilli and their toxins are also found in the mesenteric glands, liver, and spleen, it is more rational to direct our therapeutical measures at once to the seat of the disease; and the temperature will fall as a consequence.

The indications are, then, to empty the bowels by a brisk cathartic; to render the intestinal canal aseptic as far as possible; to increase the flow of bile; to sterilize the food; to eliminate the toxins by keeping the bowels open; use of diuretics; and sponging. No drug will fulfil so many of these indications as calomel. Our first indication is met by a ten-grain dose of calomel to purge freely, not only when there is constipation, but even when there is severe diarrhea. Some of our most fatal cases begin with constipation. Antiseptics cannot reach the Peyer's patches if the bowel is engorged, nor will they do much good if they are counteracted by the putrescent secretions of a fetid diarrhea. A calomel purge alone has aborted the disease. Our second indications may be met by various antiseptics—salol, arsenite of copper, naphthaline. But here, again, calomel is best. It unites with the albumen to form an albuminate, a very unsuitable medium for bacterial growth. It does not

unite with the sodium chloride as was formerly supposed. This albuminate not only coats over the Peyer's patches, but part of it, being absorbed, reaches the bacteria in the other organs. We continue the use of calomel in small doses (¼ grain) to the point of salivation, for the purpose of keeping the bowel aseptic. But independently of this action, calomel affects the inflammatory process. Dr. Delafield, the renowned pathologist, instituted the use of minute doses of calomel in all exudative inflammations.

Whether calomel is a true cholagogue or not, it does not meet our next indication—*i.e.*, increase the flow of bile. In typhoid the liver is torpid; by increasing its action we cause to flow into the intestine Nature's own antiseptic, which still further inhibits bacterial development. It prevents formation of fermentative toxins which still further poison the system, and, finally, it aids an already impaired digestion. We may use podophyllum with much advantage. There is a tablet on the market composed of calomel ¼ grain, soda ½ grain, and podophyllum $\frac{1}{12}$ grain. From four to six of these tablets may be given in twenty-four hours.

While we may not sterilize the milk all of the time, we can part of the time, and peptonize it afterwards. Of course, the gruels, beef teas, porridges and rice water are already sterilized by cooking. There is, however, a form of nourishment which is frequently well taken—peptonoids with creosote. We might almost call it an antiseptic food. A few drops of creosote can be administered in suitable menstruums, soon after eating, and this mixing with the chyme renders it at least aseptic as it passes into the bowel.

We may eliminate the toxins in several ways. Here calomel is a diuretic, and also promotes exosmosis in the intestine. Diluent liquids, such as lemonade, may be given in large quantities. The good effects of the sponging consist partly in removing the already eliminated waste matters on the skin, and, combined with friction, increasing the natural powers of the skin in this direction.

In those cases of typhoid with foul-smelling and bloody stool, it is surprising to see how quickly the odor and hemorrhage will disappear under arsenite of copper.

The following two cases illustrate the abortive treatment:

Case 1.—Adult female. After a few days of general malaise she developed nausea and vomiting, pain in bowels, heavily coated tongue, white and moist. Fever, which had been present in the afternoon for four or five days, developed to 101° A.M., 102½° P.M., at first day's visit; 101° A.M., 103° P.M., second day's visit. She had pharyngitis, epistaxis, dull, apathetic countenance, prostration, gurgling and tympanites, yellow stool, rapid pulse (120). Later there was sordes on lips, and dull hearing. She was treated with ten-grain calomel purge; later small doses of calomel, soda, and podophyllum; three-minim doses of creosote, after nourishment, taken every four hours. The diet was liquid—scalded milk, rice water, *thin* corn-starch porridge, beef tea, liquor, and lemonade. After the third day the fever left, and the patient was able to sit up at the end of the week.

Case 2.—Adult male. History of general malaise, afternoon fever, and pharyngitis for a few days; gradual increasing pains in bowels; epistaxis,

white-coated tongue. The pains finally grew violent. Being called in the night I found fever 102¼°, rapid pulse, tympanites and swollen abdomen, nausea and vomiting; intense pains in back and limbs. After twenty-four hours fever rose to 104°; then there developed alternating stupor and delirium, and picking at bedclothes. Later on, hearing became impaired, skin jaundiced, sordes on lips, the bowels were constipated, and the rose-colored spots did not develop till he began to improve. This case was very severe from the start, but he had kept at work as long as he was able to stand up. Having established the diagnosis on the second day, I gave the calomel purge, followed with tablets of calomel, soda and podophyllum till salivation began, then discontinued for a day; gave four minims of creosote after nourishment, and later on substituted peptonoids with creosote. Lemonade was allowed freely. Cold sponge-bath only twice a day; occasionally a couple of drops of turpentine to allay flatus.

This case made a rapid recovery, my visits being discontinued after the eleventh day. It began with much severity, while other cases starting more mildly had dragged along from four to nine weeks under different treatment.

I do not advocate the antiseptic and alkaline treatment to the exclusion of all others, but rather the combination of the good features of each, according as common sense and the individual case may require.

THE TREATMENT OF TYPHOID FEVER.

BY T. L. DIX, M.D., OWENSBORO, KY.

I was happy to read the able address by Dr. Hare before the Ohio Medical Society, published in the *Therapeutic Gazette* of May 16.

There are two points in regard to it I wish to note. First, he states that the bath aids the oxidation of the blood. This can also be effected by the administration of quebracho. This agent will cause the oxidation of the blood in all cases in which there is obstruction to this important process. It is this property that places quebracho in the front rank of agents in the relief of whooping-cough.

Dr. Hare speaks of the bath as an agent in controlling the circulation of the blood. There are two agents that are of the greatest importance and upon the proper use of which often depends the life of the patient, viz., opium and whiskey. When there is great arterial tension, opium intensifies this tension to such an extent as to paralyze a weak heart and death may ensue. Under these circumstances the weak heart should be supported by the stimulants and the arterioles relaxed by the exhibition of nauseating doses of ipecac. When there is lack of arterial tension, the stimulant would be hurtful and the opium would be highly indicated. I have heard doctors say: "I do not want my patient to die drunk, but there is no doubt that the husband or wife would much prefer the patient to recover drunk than to die sober."

IN MEDICAL CONCLAVE.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

At the regular meeting held May 9, 1898, Dr. Geo. H. Sherman read a paper entitled "Protonuclein in General Practise."

Dr. Sherman said that the science of bacteriology teaches us that pathogenic bacteria produce poisonous substances which by their multiplication and growth cause the illness or death of our patient. When a susceptible animal is attacked the effect is either death or the establishment of an immunity. What the exact nature of this immunizing process or the substances composing it is has not yet been definitely determined, but the antitoxin proposition seems to be the most feasible one. There is a supposition that the lymphatic, thymus, thyroid, spleen and similar glands have much to do with their production. If pepsin will aid digestion, then, the Doctor asked, is it not just as reasonable to suppose that extracts from these glands will assist in curing disease?

Believing that his experience with protonuclein may be of some benefit, the Doctor here reported his experience with its employment as a therapeutic agent, the class of cases in which he had found it applicable, how it was obtained, and commended its use to the profession. He had found it very efficient in the treatment of bronchopneumonia in children, typhoid fever, scarlet fever, puerperal fever, erysipelas, and considered it a very valuable remedy in all infectious diseases.

At the regular meeting held May 16, Dr. R. J. Kelly read the paper of the evening, entitled "Empyema, with Report of Cases."

Dr. Kelly said that from a pathological standpoint empyema may be divided into a number of varieties according to the etiological or bacteriological forms. Empyema is essentially a secondary infection, and is due to a microbic invasion of the pleural cavity. The variety of microbes most frequently found are the streptococcus and staphylococcus pyogenes and the pneumococci. The diseases most frequently ascribed as the cause of purulent pleurisy are pneumonia, malignant disease within the mediastinum, abscesses and purulent pericarditis, tuberculosis, infectious diseases, and traumatism.

The chronic character of empyema is one of its most prominent features. It may begin with acute or subacute symptoms. It may be ushered in by a chill, painful cough, dyspnea, and rise of temperature. As the disease progresses the constitutional symptoms are very pronounced, evening temperature frequently rises to 102° and 103°, hectic fever is established, there is progressive emaciation and weakness, and the other well known characteristic signs are present. When the disease is allowed to follow its own course without surgical interference the escape of pus may occur spontaneously, perforation of the lung taking place and the pus making its exit by the bronchial tubes through the mouth. It may, however, escape through the thoracic wall, by burrowing its way through the intercostal spaces.

An early diagnosis is of the utmost importance. In this connection it is

wise to explain the condition of the case as soon as pus is suspected, and to obtain consent to make an exploratory aspiration, advising a free opening into the pleural cavity and establishing free drainage if pus is found. Neglect is likely to lead to serious and perhaps fatal results. Surgical interference as soon as pus is determined is the only rational procedure. The Doctor here gave an interesting and exhaustive account of a series of cases which had come under his observation, and which he had successfully treated by first aspirating, and when pus was found resorting to resection of the ribs and free drainage where the aspirating needle had not succeeded in withdrawing the purulent fluid.

The paper was freely discussed by Drs. W. S. Anderson, McKean, and other members present.

DETROIT ACADEMY OF MEDICINE.

At a well attended meeting June 14, Dr. J. K. Gailey read a paper on "Modern Anesthesia." The importance of a thoroughly prepared and competent anesthetist was insisted upon as a necessity. He should be second only to the operator in skill and importance at the operation. More careful instruction in administering anesthetics should be given in medical colleges, as the average recent graduate is wholly unprepared to be trusted with the life of the patient during an operation. The faith of the surgeon in his anesthetist should be such that he need attend only to his operation, and not to his patient's condition also.

The kind of anesthetic to be used in a given case should depend upon a careful physical examination to be made by both surgeon and anesthetist, and should not be a routine giving of any one anesthetic. A man who can administer chloroform well should be able to give ether or any of the mixtures without trouble. Hence the choice of the anesthetic varies with the disease and the relative safety of the drugs. The anesthetics used are chloroform, ether, and their combinations; the Vienna mixture; the A. C. E. combination, containing alcohol also; and the Schleich solution, which has petroleum ether with the chloroform and ether. According to the statistics the Schleich solution has the smallest mortality, but without doubt the statistics are not wholly reliable. Chloroform causes the most deaths, yet except for its danger it is the most satisfactory agent to use. The safety of the anesthetic depends, according to Schleich, upon adapting the boiling point of the narcotic to the temperature of the body, for the absorption of a general anesthetic is dependent on the surrounding temperature and the boiling point of the anesthetic. The maximum evaporation point of chloroform is 142° F.; of A. C. E. mixture, 120° F.; Vienna mixture, 106° F. The mortality from these anesthetics is in ratio to the boiling points.

Schleich's solutions are three: No. 1, chloroform 1½ ounces, petroleum ether ½ ounce, sulphuric ether 6 ounces; No. 2, chloroform 1½ ounces, petroleum ether ½ ounce, sulphuric ether 5 ounces; No. 3, chloroform 1 ounce, petroleum ether ½ ounce, sulphuric ether 2⅔ ounces. These are chemical mixtures, and are the latest additions to the list of general anesthetics.

Much more care should be taken in the choice of the anesthetic, and in the way it is given.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

HOBSON'S COURAGE.

The heroic exploit of Lieutenant Hobson and his gallant companions on the *Merrimac* has sent a thrill of admiration round the world. The enemy himself pauses to acknowledge such noble valor. As an example of pure courage, the action of these brave men will take rank with the highest achievements of antiquity. Mankind is sometimes surprised by finding itself the possessor of unsuspected virtues. The present war is furnishing us with such examples. Hobson's bravery has enriched us all to the extent of making us participants in his achievements. He has given us a glimpse of higher and untouched ethical values. Physical courage and personal bravery may have come to be regarded by some as archaic virtues, but if this be so, we should then be thankful, not so much for that which we have attained as for that which we have not forgotten.

The precise nature of this high kind of courage is difficult to analyze. It possesses certain moral qualities, which are often wanting in examples of simple physical courage. There is a certain indifference to fate, a kind of sensory anesthesia, which is sometimes confounded with genuine bravery. Physical courage of this order finds its apotheosis in the annals of the scaffold. It is the courage of the inevitable, the fortitude of despair. It is perhaps allied to the placidity which patients display when they submit to necessary surgical expedients. It is a different kind of courage which must form the motive power in such actions of transcendent bravery as the achievement of the *Merrimac's* men.

The love of peril, which seems to signalize martial courage, is thought by many to indicate intellectual imperviousness. Mr. Stanley Weyman says: "Nothing sits worse on a fighting man than mere knowledge, except perhaps a lively imagination." If this be so, this kind of courage is less a moral quality than a state of feeling. Many splendid achievements doubtless result from conditional states, and in so far as they are capable of classification, must belong to the impulsive rather than to the reflective class of actions. It would nevertheless be the extreme of pessimism to regard a virtue of this higher order as an archaicism that possesses the vestigial significance of a vermiform appendix. It is as a deliberate and well-reasoned intention that Hobson's achievement will inspire generations yet unborn to feats of noblest endeavor.

EDITORIAL NOTES.

The Amusements of Distinguished People.

A London paper has inquired into the amusements of the members of the Privy Council. As the average age of the Privy Councilor is more than fifty, it is somewhat surprising to find that more than one-half of the members of the Council are enthusiastic cyclists or golf-players. This indicates how much athletic pastimes enter into English public life. Lord Roberts, of Kandahar, to whom field sports might not prove the diversion that they are to men of sedentary type, enjoys recreations of a literary kind and ransacks the archives of Italian history for his amusement. The Archbishop of Canterbury takes his pleasure in novel reading. The Bishop of London, who is considered to be the busiest man in England, and to whom it is important that such idle moments as he has he should waste well, gives himself up to the cigarette. Lord Salisbury, had not fate destined him for a statesman, would probably have been an electrician, and still beguiles himself as much as possible with scientific pursuits. Justice Fry studies botany, and Mr. Bryce fishes for salmon or anything else seasonable. The Duke of St. Albans enjoys a steam yacht, and Sir Charles Dilke fences and rows. The athletic form of recreation is evidently most in favor with these distinguished men.

The Army Medical Service in England.

The army medical service in England has for a long period of time been suffering from serious disadvantages similar, it is supposed, to those which beset the naval surgeons here. The difficulties and uncertainties of rank have led to much unpleasantness. An entire reform of the army medical service is now promised. One of the measures to be adopted is to consist of the creation of a separate army medical corps just as in the case of engineers. The lot of the medical soldier is a hard one. He is just as ready and prepared to endure the hardships and privations of active service as the officers of the line, and in all civilized countries the importance of his services should be realized and his position made satisfactory and secure.

Havana Can Be Healthy.

It is satisfactory to know that Havana can be made the healthiest city in the South, with the application of a little engineering skill, and that Cuba itself can cease to be any sort of menace to American public health. The geographical conditions of Cuba, with hills 1500 feet high at the rear of Matanzas, will permit favorable drainage arrangements. Yellow fever is now propogated through the infected buildings and wharfs of Havana. The construction of a canal through the stagnant harbor of Havana will purify it so that Havana can be made one of the healthiest cities of the tropics. Sanitation is not the least of the blessings of civilization, and is sure to follow the American occupation.

ITEMS AND NOTES.

KLONDIKE physicians must pass an examination.

SIR JAMES PAGET, the veterinary surgeon, is very ill.

JEFFERSON MEDICAL COLLEGE, Philadelphia, will have a new building next year.

SIR RICHARD QUAIN, lately deceased, left an estate of over half a million dollars.

PHILADELPHIA has taken definite steps to correct hospital and dispensary abuse in that city.

THE burning of the Hospital of St. Hyacinth, near Quebec, May 10, resulted in fourteen deaths.

THE plague has at last reached Calcutta, having been brought there, it is believed, by infected rats from ships.

BARON LYON PLAYFAIR, chemist, political economist, civil service reformer, and parliamentarian, died in London May 29.

HIGH degrees of myopia, according to Knapp of New York, are more frequently seen in Germany than in America.

OWING to demonstrations upon the part of the students, the Universities of Naples, Bologna and Rome have been closed.

BERLIN is to have a new hospital in the extreme northern part of that city. It is to cost three millions of dollars and is to be finished in 1903.

DR. WILLIAM OSLER, of Baltimore, has been selected for that coveted scientific distinction, the "Fellowship of the English Royal Society."

MRS. L. Z. LEITER, of Chicago, has purchased the Chickamauga Park Hotel, and presented it to the Government to be used as a hospital for troops.

WHILE at present there are no official women practitioners in Germany, it is probable that the end of the century will see women legally allowed to practise medicine.

"MY husband has all the virtues but one," remarked the wife of a struggling young doctor. "What is that?" asked her sympathetic friend. "Patients," replied the young wife.

MUNKACSY, the famous Hungarian painter, has been pronounced hopelessly insane. His symptoms indicate a condition of brain softening from which recovery is impossible.

Dr. Mavrogenis, of Athens, is said to be the last survivor of the Greek War of Independence. He was born in 1798 and was one of the first to rise against the Turks in 1821.

There are two cases of yellow fever now at the New York Quarantine Station. They were brought by the steamer *Garrick*, which arrived recently from South American ports.

A bill has lately been introduced into Congress, providing for the appointment of a brigade dentist for each brigade with the rank of major, and one for each regiment with the rank of captain.

At the present moment it is open for any uneducated and unqualified person to practise medicine in India, while the sumptuous imagination of the Oriental offers a premium on quackery.

The Kentucky State Medical Society, at the annual meeting recently held, passed a resolution discountenancing the making of contracts for medical service at a fixed annual rate with lodges, mutual benefit societies, and medical clubs.

A German doctor who has been collecting information about the habits of long-lived persons, says that the majority of those who have attained old age indulged in late hours—that is, they retired after midnight and remained in bed late in the morning.

According to the official returns of the Registrar-General, the marriages in London during the year 1897 numbered 41,223, and the proportion of persons married was 18.5 per 1000 of the population; this is the highest rate recorded in any year since 1878.

The *Journal of Tropical Medicine*, a new periodical published in London, will be devoted to the publication of papers on tropical diseases and to the distribution of subjects scientific and practical affecting the interests of medical men of the tropical and subtropical climates.

The Italian Government has officially announced that no modifications will be made in the laws at present in force relative to foreign medical practitioners in Italy. Foreign practitioners duly qualified and registered may therefore practise as freely as they desire.

Dr. Richard Caton is delivering, at the Royal Institution in London, a course of lectures on the "Temples and Ritual of Asklepios at Epidaurus and Athens." The lectures are expected to impart considerable new information which has recently been acquired concerning the temples of Æsculapius.

Dr. John Guiteras, professor of pathology in the University of Pennsylvania and an eminent yellow fever expert, has been instructed by the Surgeon-General of the United States Army to proceed to Tampa, Florida, to act as medical adviser to the commander of the army which it is expected will invade Cuba.

GREIFSWALD is a town in Germany of but some 25,000 inhabitants near the Baltic Sea, but it contains an important university, with a medical department in which nearly 500 medical students are in attendance. After Berlin, this makes it the second largest medical school directly under the control of the Prussian Government.

WOMEN do not turn bald more frequently than men, in spite of certain modes of coiffure which more or less spoil the hair, and in spite of certain special physiological circumstances, such as pregnancy and childbirth, which tend to cause loss of hair. In female criminals baldness is less common than among the normal class.

IN the village of Saasen, Shepherd Johannes Stende and his wife are celebrating their diamond wedding in great bodily vigor amid the general rejoicing of the community. The husband is ninety years of age and the wife eighty-three. The Emperor generously ordered a present of thirty marks (about $7.50) to be given to them.

THERE is soon to be erected at Harvard an infirmary designed for the accommodation of students who become ill at that institution. The poorer students will be treated without charge, while those able to pay will be charged a certain sum. The building will have a frontage of 46 feet, a length of 130 feet, and will be two and a half stories in height.

A NOVEL malpractise suit has been begun against two physicians of Findlay, O. Sixteen years ago they set the broken leg of Carey Hendricks, who was then five years old. He is now twenty-one, and not liking the results of the work done so long ago has begun a damage suit against them for the recovery of $150 paid for the job and $5000 damages besides.

"SEPSIS," says the *Clinical Reporter*, "in puerperal cases is sometimes caused by 'antisepsis.' Careless practitioners are very apt to neglect the old-fashioned soap and water, and to imagine that they have antisepticized their dirty hands because they have hastily rinsed them in a weak bichloride solution, and to carry to the parts which they manipulate whole armies of pathogenic bacteria."

D. VEDDER, of Christiania, Sweden, reports the results of examination of 310 married women who had never been pregnant, though married at least one year. In fifty of these cases he was able to examine the husband also. He draws the conclusion that in seventy per cent. of these cases the husband is to blame for the sterility, either through impotence or through infecting his wife with gonorrhea.

IN Japan not only is vaccination compulsory, but the law directs that revaccination shall be practised after every five years. In 1896 legal enactments were especially made for the production and distribution of vaccine, and calf lymph is exclusively employed, prepared with antiseptic precautions. Thus the Far East profits by the teaching of the West, and afterwards the West has to learn wisdom from the East.

ACCORDING to "Petermann's Mittheilungen," there is a city of 60,000 inhabitants in Syria, not far from Latakia, in which there is not a single physician. The name of this unfortunate place is Hamah. As is the case with most of the towns in that country, diseases of the eyes are exceedingly common, and an oculist who is willing to rough it and to suffer many discomforts could doubtless gather in numerous shekels.

NINETY-SIX THOUSAND DOLLARS a pound seems a most stupendous price for any drug, and yet a prescription was filled recently in New York City which would, in the ratio of the price charged for the quantity ordered, bring the retail cost of a pound up to the sum mentioned. The prescription was for twelve tablets of the hydrobromate of hyoscine, each $\frac{1}{100}$ of a grain. The price paid was $1.50, or at the rate of $12.50 a grain.

ABBE says that the best treatment for nevus of the face consists in the use of an ordinary large cambric needle or hat-pin, heated to a red heat, and then plunged into the tissues of the nevus *at a black heat.* The insertion of the needle at a black heat has much to do with securing good results. Punctures should be made in this way all over the tumor. There is no bleeding whatever, and the case is usually cured in three or four operations.

A WRITER in a Chicago exchange tells the following story: While attending a confinement he saw the nurse return, soon after the placenta had been expelled and taken from the room, with a small piece of meat well peppered and salted, which the young mother ate. It was explained that "the meat was a piece of the afterbirth, taken to prevent after-pains; for that is how all animals do." The revolting morsel was given the credit for an early "getting up."

THE *American Medico-Surgical Bulletin* says that recent experiments and observations show that death after burning is due to the absorption of ptomaines produced by chemical changes in the tissues due to burns. The immediate removal of the burned part prevents this absorption, and consequently all specific symptoms of the burn and death. The same objects may be attained by venesection and the immediate transfusion of healthy blood or artificial serum.

IN the course of an article on Manila and its people, the *New York Evening Post* says that the city, though low, is, broadly speaking, healthy except for smallpox, which is principally found among the lower half-caste natives and Chinese. Malarial typhoid chooses the careless foreign residents for its attentions. The black plague has never reached the Philippines, but cholera used to decimate Manila's native population before a generous municipality gave the city its present good water-supply system.

PROFESSOR KRAUS, of the University of Berlin, lecturing on Anthropology, brought in as a side remark, when speaking of the Esquimaux, that he considered Andre's expedition to the North Pole as nothing else but scientific suicide. He said that no matter how perfect the heating apparatus they

possess, in the confined space in which they were, with so little opportunity for moving, it would be impossible to keep from freezing to death; the natural course in such a case being an irresistible sleep that would overpower them, and from which they would never awake.

EGYPT is shown by the latest census to enjoy the singular preeminence of being the one country in the world, so far as known, where men are in a majority over women. The male sex in the dominions of the Khedive exceeds the female by 160,000. It is a curious circumstance that this numerical predominance of the male is very evenly distributed over both Upper and Lower Egypt. It is only in the sparsely-peopled and newly-recovered Province of Dongola that the women are more numerous than the men. Another interesting fact is that the proportion of Egyptian women knowing how to read and write is little more than one-half per cent.

LANGUAGES TAUGHT BY MACHINERY. — The phonograph is now used to teach foreign languages. With each phonograph the pupil receives a text-book and twenty loaded cylinders. Each lesson in the book is arranged in the form of questions and answers. The pupil, ready to begin, puts the cylinder of the first lesson in the machine, the tubes in his ears, and starts the phonograph. Keeping his eye on the book, he hears the words and phrases repeated, with their proper accent, just as if the professor stood at his side. There is the additional advantage that the lesson can be repeated twenty or a hundred times if necessary, until every sound is familiar to the pupil.

MISS ELCUEFF, at one time an extern of the Paris hospitals, and who afterwards received the degree of Doctor of Medicine at Moscow, has recently died at the age of twenty-six in the following distressful circumstances: She had been appointed physician to the Asylum for Poor Children at Nijni-Novgorod. Recently a prematurely born child admitted to that institution died, and its death was attributed to burns caused by the hot flannels in which it was wrapped to keep it warm. Believing the child's death to be due to her own carelessness, Miss Elcueff put an end to her life. The post-mortem examination showed that the child had died, not in consequence of the burns, but from malnutrition.

A HORSE in London, recently, was frightened by the odor from a bear which was being led along the street. It ran away, upsetting a brougham and killing a child who was riding with its nurse. In this connection *The Lancet* observes: Horses are well known to be disposed to fits of unreasoning fright, and no horse unless carefully trained can bear the smell of two animals —namely, the bear and the camel. The smell of the latter is offensive enough to human nostrils, but this would not explain the terror which a horse exhibits at first sight or smell of a camel. But the reason for the horse's dread at the smell of a bear must, we suppose, be found in a reminiscence continued through the race from the time when the cave-bear fed upon the primitive horse.

The question of the existence of leprosy in America before the landing of Columbus occupied the Berlin Society of Anthropology at several of its meetings last year. The inquiry was started by the investigations of Dr. A. S. Ashmead, of New York City. He had noted on old Peruvian pottery deformations of the face and extremities, resembling those produced by that disease. The discussion in Berlin was shared by several members. Some doubted the antiquity of the pottery; others said the representations were from a patient suffering under a local disease called *llaga*. In summing up, Professor Virchow concluded that the pottery was authentic and that the lesions shown were pathological, but that whether from leprosy or some other disease must be left for further investigation.

The time at which most people die has been the subject of investigation abroad recently. It is popularly supposed that most people die at midnight. On the other hand, Fere, before the Société de Biologie de Paris, has stated that he had carefully gathered statistics at the Bicêtre and Salpêtrière hospitals concerning the hours of the deaths which had occurred in these hospitals from 1878 to 1887, and all that he concluded from them was that from 7 to 11 P.M. there were fewer deaths than at other times. The statistics of different countries seem to differ. According to Signor Ruseri, deaths in Italy reach their maximum from 2 to 7 P.M. Finlayson, of Glasgow, states that from 5 to 6 A.M. is the most fatal hour. Dr. Beadles affirms that most men die between 5 and 7 A.M., and most women between 6 and 7 A.M.

While the bubonic plague seems to be spreading in India, says the *Scientific American*, and threatens almost to equal in fatality the epidemic of a year ago, the French physicians in Algeria have discovered a disease in Africa which, if the meager reports which have been received prove true, is not less fatal. It is a mysterious disease, and no satisfactory diagnosis has yet been made of it. It first showed itself by the patient having an inordinate desire to sleep. Its symptoms resemble those manifested in laudanum poisoning. If the patient be not at once aroused, he soon falls into a stupor which is succeeded by death. From its symptoms it has been called by the correspondent of the French medical journals in Algeria, "La maladie du sommeil" (sleeping sickness). Europeans are not susceptible to it, Arabs only slightly, but the negro falls a ready victim. Two doctors of the University of Coimbra have a theory that the disease is microbic. With some bacilli serum obtained from the blood of a young negro who had died from the disease they inoculated half a dozen rabbits. The little animals became drowsy and soon died, exhibiting all the symptoms of the disease.

NEW PUBLICATIONS.

MODERN GYNECOLOGY.

The publishers of this book have placed it at the head of their "Medical Classics" handbooks because the work is "designed to fill a place in progressive medicine, and because of its need here." While the book unquestionably contains much that is good, and may prove useful in many ways to the general practitioner, no reason can be seen for its elevation to the position of a "classic"—which it is far from being—nor is there any crying need for its existence. There are already too many little books of the kind striving before the medical public for recognition, many of them books which cannot be condemned as actually bad—for each contains something of merit—but books for which there is no especial demand or evident necessity beyond the writer's ambition to be classed as an author. Such publications are not of the kind to place in the hands of the student of medicine on account of their limited dealings with the subjects which they are supposed to teach, nor are they satisfactory reference works for the practitioner for the same reason.

The book before us, however, having arrived at the dignity of a second edition, has evidently found appreciative readers, and is therefore entitled to more than passing notice. The author has attempted to prepare a work for the guidance of the "family physician" in the diagnosis and treatment of genesic disorders, and in this has succeeded to a large degree. The text is well written, and is devoted mainly to the discussion of symptoms, diagnosis, and medical treatment. The suggestions offered are, as a rule, eminently practical and generally reliable. We fail, however, to notice much that is especially new, and a good deal of the old which is given might better have been omitted. It is incomprehensible, for example, why any one in these days of enlightenment should still cling to the use of the sponge-tent, one of the filthiest and most dangerous devices, especially in the hands of the general practitioner, ever introduced into genesic therapy. Vastly more harm than good has resulted from the employment of this means of dilating the cervical canal, and it is quite time that the tent should be relegated to the limbo of wicked inventions, and much- and long-suffering woman given the benefit of modern, scientific, safer and more efficacious methods.

The book is clearly printed on good paper, sufficiently well illustrated to illuminate the text, and is tastefully bound in dark-red cloth. W. P. M.

Modern Gynecology: A Treatise on Diseases of Women, Comprising the Results of the Latest Investigations and Treatment in this Branch of Medical Science. By Charles H. Bushong, M.D., Assistant Gynecologist to the Demilt Dispensary, New York, etc. Illustrated. Second Edition, enlarged; pp. 404. New York: E. P. Treat & Company, 1898.

HANDBOOK OF LEGAL MEDICINE.

The opportunity for the student to become acquainted graphically with important medico-legal cases has never been so favorably presented as in Dr. Hofmann's manual. The illustrations consist for the most part in magnificent aquarelles executed by the celebrated artist, Schmidtson. They include a large number of plates depicting suicides, murders, and post-mortem appearances of medico-legal interest. The volume is a veritable treasure-house of information and will be as acceptable to the legal profession as to the medical. It is impossible to commend too highly this excellent manual, or to praise too warmly the admirable workmanship it displays in its make-up.

Atlas of Legal Medicine. By E. Von Hofmann, Professor of Legal Medicine and Director of the Medico-Legal Institute at Vienna. Authorized Translation. Price, $3.50 net. Philadelphia: W. B. Saunders.

MEDICAL AND SURGICAL REPORT OF THE PRESBYTERIAN HOSPITAL, NEW YORK.

The report of the Presbyterian Hospital of New York is a model of what such publications should be. The cases reported are all of far more than ordinary interest, and the scientific aspects of medicine have been distinctly enriched by the contributions of the hospital staff.

Medical and Surgical Report of the Presbyterian Hospital in the City of New York. Edited by Andrew J. McCosh, M.D., and Walter B. James, M.D. New York: Trow Directory Printing and Book-Binding Co.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

The Surgical Treatment of Intestinal Tuberculosis.

Dr. Nicholas Senn, in the *Journal of the American Medical Association* of May 21, says there is hardly an organ in the body which, when the seat of a localized tubercular process, has not been exposed and subjected to direct treatment with a fair expectation of removing or limiting the further extension of the disease. The intestinal canal is one of the last territories opened up for successful surgical invasion. The results obtained by the surgical treatment of localized intestinal tuberculosis are such as to encourage further effort in this direction. Diffuse primary tuberculosis remains, for the present, a surgical *noli me tangere*. Surgical intervention is also contraindicated in secondary intestinal tuberculosis, in all cases in which the primary disease, usually pulmonary tuberculosis, is far advanced and constitutes in itself an imminent source of danger to life.

The author has several methods of operating, namely: (1) Abdominal section and iodofumigation. Tapping and injection of from seven cubic centimeters to fifteen cubic centimeters of a three-per-cent. of iodoform glycerin emulsion repeated six or eight times, at intervals of from one to two weeks, often succeeds in curing cases of peritoneal tuberculosis. This method has a limited application in the treatment of intestinal tuberculosis, when the disease is too extensive for more radical measures, and no obstructive lesion is indicated by the symptoms or discovered at the time of the operation. (2) Enteroplasty. Plastic operations are indicated in solitary circular strictures following the healing of a tubercular ulcer and constituting the cause of intestinal obstruction. (3) Enterectomy. The most radical treatment of intestinal tuberculosis in appropriate cases is resection followed by circular suturing. Resection is indicated in isolated intestinal tuberculosis as long as the swelling is movable and the disease gives rise to symptoms of obstructions. If, however, the disease is no longer limited to the organ primarily affected, or if it is complicated by advanced pulmonary or general tuberculosis, entero-anastomosis should take the place of a radical operation.

In conclusion Dr. Senn says: "There can be but little doubt that with an increased knowledge of the etiology and pathology of intestinal tuberculosis surgeons will be induced to resort to operative treatment more frequently in the future, and that with further improvements in the technique of intestinal operation the surgical treatment will yield more encouraging results."

Etiology of Cancer.

Recently M. Bosc read a paper before the Montpellier Medical Congress, on the origin, etiology, prophylaxis and inoculability of cancer and sarcoma. Considerable light was thrown on the genesis of those tumors by

the knowledge of their parasitic nature. The study of spontaneous tumors of the rabbit showed that under the influence of the invasion of the epithelium by the parasites proliferation and hypertrophy of the epithelium were produced; but after the destruction of those the parasites invaded the conjunctive tissue, so that the tumor, primarily epithelial, became solely conjunctive. These notions were entirely applicable to tumors in man. The epithelioma could give birth to proliferation of the conjunctive tissue; carcinoma, at the outset epithelial, became subsequently conjunctive. The only specific element of the tumors was the parasite; the formation of the neoplasm should be brought back to a process of chronic inflammation, influencing several tissues. The etiology and the prophylaxis we derive from the knowledge we had of the rôle of the sporozoa of the dog, the rat, the rabbit, the fowl, the fish, etc., which contaminated human food, and constituted a danger for the digestive canal. The klossia could be an inciting cause of cancer of the stomach, which is frequent in the localities where the people eat large quantities of raw snails. All insects, worms, larvæ, contain enormous quantities of spores, and it was a known fact that cancer was especially frequent in country districts, in wooded and damp places, where the sporozoa found the most favorable conditions for their development, and where the insects were everywhere present — on the dress, the skin, etc. An insect crushed in the immediate neighborhood of an excoriation constituted a danger. Cancer being of parasitic origin should be considered as contagious as soon as it became ulcerated. The experiments of Moran proved the possibility of the transmission of cancer by bugs. Hence the prophylactic rules: remove from human habitations those animals which would be contaminated with sporozoa, improve the sanitary condition of country dwelling houses, reject from food or cook thoroughly any animals containing spores, wash with care all vegetables eaten raw, and consider ulcerated cancer as contagious. The speaker had practised a large number of inoculations of cancer from man to animals, and in nearly every case the malady was reproduced.

Hydraulic Pressure in Contracture of the Bladder.

Dr. Hugh Young, in the *Bulletin of the Johns Hopkins Hospital*, reports the use of this method in a large number of cases of cystitis, and comes to the following conclusions:

That it is possible to restore the capacity of a bladder contracted by chronic inflammation of the worst character, by systematic distention by hyraulic pressure.

That such dilatation has a most beneficial effect on the vesical inflammation and muscular tonicity.

That the number of urinations daily may thus be greatly diminished.

That no ill effects are produced by considerable hydraulic pressure, and there is no danger of infecting the kidney.

One of the most striking features of the treatment is the rapidity with which patients improve. Pain present for years may disappear in a few days, pus and mucus diminish markedly, and strongly ammoniacal urine become acid in a short time.

MEDICINE.

New Method of Vaccination.

Dr. M. B. Hutchins, in the *Journal of the American Medical Association*, has this to say in regard to a new and painless method of vaccination:

The point to be vaccinated is cleansed. A piece of cotton as large as the desired denudation is wet with liquor potassæ and laid on, or a little of the fluid is put on with the bottle stopper. After two or three minutes, or as soon as slight burning is felt — it usually does not burn at all — the cotton is removed, if it was used, and the soap-mixture which has formed with the skin secretions is wiped off with a piece of wet cotton, though this is not essential to success, in order to render the next step easier. Then an ink eraser, a toothpick of soft wood, a pencil rubber, a piece of gauze (the quickest) or a piece of damp cotton is used to rub away the softened epidermis. The friction is slight, the pain is only a little stinging when the sensory nerve filaments become exposed. We obtain in a few seconds a moist, shining surface, often a clear view of the papillary vessels, but no bleeding. The vaccine is now applied and let dry on in the usual way.

The advantages of this method are its practical painlessness and the absence of terrifying instruments, such as the "Neptune's trident," the lancet, or sewing needle. Further, bleeding is a bar to successful inoculation. By scarification it is difficult to stop short of bleeding, while with denudation bleeding is almost impossible. A little girl aged six years vaccinated herself by this method. There is also less danger of an undesired infection from instrument or epidermis when this method is employed.

As to the results: A good lymph will "take;" an unreliable one will not. Inoculation was successful in as many cases vaccinated by denudation as by scarification.

Diabetes and its Modern Treatment.

At the recent Sixteenth Annual German Congress, as reported in the *Medical News* of May 14, Professor Leo read a paper on this subject which elicited a lively discussion. He believes that the prophylaxis of diabetes necessitates the withholding of beer and fermented liquors generally. While bread and foods rich in carbohydrates are to be forbidden, he does not exclude all of the vegetables as some have advised.

Prof. Von Jaksch questioned the real good accomplished even if, on dietetic treatment, the urine is rendered free from sugar. While there will be no glycosuria, nutrition will suffer. A sugar which Nature will use and tolerate is essential, and he had found arabinose-methyl pentose most satisfactory.

There was quite a uniform agreement that saccharin was not the indifferent harmless material it has been represented to be. Some were much opposed to its use. Some had found that digestion was greatly disturbed by its use.

Subcutaneous sugar injections have been tried, but are painful.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,
Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

The Vomiting of Pregnancy.

Bacon (*American Journal of the Medical Sciences*, June, 1898) defines vomitus gravidarum as "vomiting during pregnancy, due to a variety of immediate causes acting upon the abnormally irritable nervous system of the pregnant woman." These causes may be due: (1) to an abnormal condition of the vomiting center; (2) to sufficiently powerful impulses sent from the genital tract causing an irritation of the vomiting center; (3) to a combination of influences affecting the vomiting center both directly and reflexly, as poison circulating in the blood or nutritive changes coexisting with peripheral irritation; (4) to a psychopathic factor like that which exists in the vomiting of hysteria.

While vomiting may commence at any time after the first week of pregnancy, seventy per cent. of all cases begin during the first month, very few developing during the fifth or sixth months. The greatest amount of sickness exists during the second month. Vomiting does not always occur in first pregnancies, but in primiparæ the frequency of its appearance increases with age, so that ninety per cent. of first cases over twenty-five years of age are more or less affected. Women who menstruate regularly and without pain and not too freely have less sickness than those who are troubled with profuse or painful menstruation.

In summing up his suggestions regarding treatment the writer says:

1. The abnormal irritability of the nervous system, including the vomiting center, is to be allayed by keeping the patient in the horizontal position, by attention to the skin and bowels and kidney, using rectal and, if necessary, hypodermic injections of salt solution.

2. The hysterical condition which is so commonly found present should be controlled by strengthening the will and influencing the dominant idea of the patient.

3. All sources of peripheral irritation should be discovered and treated.

4. In extreme cases subcutaneous saline injections serve the threefold purpose of (*a*) dilating the blood and increasing vascular tension; (*b*) eliminating toxins through renal and intestinal emunctories; (*c*) furnishing two most important kinds of food.

5. Induction of abortion is never indicated. At a stage when it is safe and efficient it is not necessary, and in extreme cases it adds greatly to the danger, rarely stops the vomiting, and can be substituted by the artificial serum.

The Surgical Treatment of Catarrhal Erosions of the Cervix in the Nulliparous Woman.

Munde (*American Journal of Obstetrics*, May, 1898) declares in favor of operative treatment in catarrhal inflammation of the endometrium producing hypertrophy of the glands and papillæ of the mucous lining of the cervical

canal sufficiently powerful to force apart the lips of the virgin os, sometimes even producing an eversion similar to the actual parturient laceration of the cervix. This condition, which is not an uncommon one, must not be mistaken for congenital fissure of the cervix as described by Fischl and Penrose, or for the congenital erosion reported by Leopold and Ahlfeld. The disorder, described in the older books as "granular and cystic degeneration of the cervix," is the result of chronic endometritis, and is exceedingly difficult of cure by the ordinary methods. The operative technique as described by Munde consists, "after curetting the whole endometrium (the sharp curette in the cervical cavity), in excising with slightly curved sharp scissors or sharp slender knife the entire diseased tissue to the depth of half an inch in a converging direction." The raw surfaces are then brought together by deep silver wire or other sutures, and a thin strip of iodoform gauze is carried through the cervical canal and into the uterine cavity. The gauze is changed every forty-eight hours for a week or ten days, and afterwards, at intervals of a week or two, Peaslee's sound should be passed to prevent cicatricial contraction of the os and cervical canal.

Prolapse of the Omentum Following Vaginal Hysterectomy.

Medanic (*Centralblatt für Gynäkologie*, No. 15, 1898) saw a case of the above condition occurring two months after ablation of the uterus and adnexa for pus tubes. Digital examination revealed a tumor at the vaginal vault, the former, on the withdrawal of the finger, elongating until it reached the introitus as a narrow band. Further examination showed the presence of a small opening at the apex of the vagina. Microscopical examination of a portion of the new growth proved it to be omental in structure. The vagina was packed with iodoform gauze and the patient put to bed; the gauze being changed several times during the succeeding days. Nearly three weeks later, on examination prior to proposed operation for the removal of the prolapsed omental mass, the latter was found to have disappeared, having been withdrawn into the abdominal cavity, and the opening in the vaginal vault had entirely closed. The patient had no further pain and was discharged cured. Subsequently a stitch was discovered in the vaginal vault and removed. It was also learned that following the original operation the patient had employed a daily douche and had moved the syringe nozzle about in the vagina with great freedom. It was thought that the stitch had prevented complete granulation of the wound at the point where the opening was discovered, and that the energetic use of the syringe nozzle had further assisted in keeping open the lips of the wound.

Comparative Value of Celiohysterotomy and Celiohysterectomy in Cases Requiring Cæsarian Section.

Barton Cooke Hirst (*American Journal of Obstetrics*, May, 1898) states that while certain conditions in parturient women forbid a freedom of choice as to operative procedure, in his opinion it will be found that the Porro operation will be absolutely required in practise a little more frequently than the Sänger.

In Hirst's own experience of twenty cases of Cæsarian section, seventeen of the number were hysterectomies. To subject a woman with an insuperably obstructed pelvis to the dangers of subsequent pregnancies and of repeated Cæsarian sections is clearly unjustifiable, and for this reason the removal of the uterus is the preferable operation. Hirst finds that the disagreeable and annoying symptoms incident to early artificial menopause are neutralized by the function of lactation in cases of celiohysterectomy, and that as far as he has been able to ascertain, shortening of the vagina and loss of sexual feeling have not resulted in any of his Porro operations.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,
Microscopist to Harper Hospital, Detroit.

The Dangers of Typhoidal Urine.

Dr. Petruschky, in the *Centralbl. für Bacter.*, Band xxiii, No. 14, gives the results of looking for typhoid bacilli in the urine of fifty typhoid patients. In only three cases were they found in the urine, and in only one case could they easily be detected in the feces. Although the fact that typhoid bacilli are eliminated with the urine has been known for some time, they were seldom present, and not in the beginning of the disease, so had no diagnostic value. Petruschky, however, believes they are a great factor in the epidemics of the disease; for in certain cases the number eliminated can be very great—millions of living typhoid bacilli per cubic centimeter—and, moreover, this elimination continues for weeks, even far into the period of convalescence.

The author cites a case from Professor Scheele's department, to show that these bacilli in the urine are infectious to man. The typhoid patient, during the absence of the nurse, urinated in a champagne bottle which stood by the bedside. When the nurse poured some of the fluid into a glass to give to the patient, she noticed the cloudiness, tasted and swallowed the fluid; she was then aware that it was not champagne. Twelve days later she had typhoid fever.

These observations certainly point to greater care in prophylaxis, especially in regard to the urine—antiseptic solution for the hands, urinals, and the urine itself.

Origin of Red Blood-corpuscles.

Dr. A. Pappenheim contributes to *Virchow's Archiv*, Band 151, Heft 1, a very complete study of the origin of the red blood-corpuscles. He reviews the literature upon the subject, covering some 164 references. His experiments were very exhaustive upon the methods of staining and studying the structure of the nuclei. He obtained his best results by fixing with heat at 120° C. for five to ten minutes, then dipping five seconds in a concentrated sublimate solution; staining with alum carmine—methyl green. He believes that the red blood-corpuscles are derived from the basophile leucocytes.

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT,
Attending Neurologist to Harper Hospital.

The Heredity of Alcoholism.

The following paragraphs are taken from a paper read before the Medico-Legal Society of New York by Dr. A. Sparks, of Brooklyn:

"On ovulation, the alcoholic impress is one of deranged, rather than, as in opium inebriety, suspended action, and so it comes to pass, unfortunately, that the average female alcoholist is not sterile. Just the reverse obtains with the woman morphinist, and it is one of the mysteries of a Divine economy that this beneficent law does not extend the same wholesome result in her alcoholic sister, and so shut off, in large measure, a diseased, depraved progeny that tends to curse every community with a physical and moral blight, the extent of which is beyond compute and with which no other agent for ill can compare.

"One remedy, radical, and a *dernier ressort*, remains to be noted. Granting the woman has been given proper treatment, persistent and prolonged, without avail, she should be desexualized. This whether maid or matron, for many would not have the courage of conviction equal to that of a young woman brought to my notice who refused an alluring offer of marriage solely because she was a periodic alcoholic. It might be curative, it surely would be preventive, and better by far unsex the woman than have her beget a brood tainted with this curse of the world."

Neuro-alcoholic Notes.

From "Inebriety and its Cures among the Ancients," by Wm. L. Brown, in the April number of the *Quarterly Journal of Inebriety*, we glean the following notes:

Total abstinence among the ancients was conspicuous for its absence.

Bad effects of drinking were averted by freely diluting their wines with water.

The Romans mixed their wines with honey.

Wreaths and crowns were considered of great effect in preventing drunkenness.

Clothing was important for a like purpose, and amethyst was the "drink-resisting" color.

Nutmegs were recommended for their diuretic properties.

Pliny refers to the "gold-cure" thus: "Gold that was brought in a place to do a shrewd turn, wash it well and sprinkle those to be cured with the water."

Snails and onions were eaten to stimulate a flagging appetite.

The object of all the treatment was to "repress" the vapors.

Hydrotherapy was resorted to in the form of the hot bath and the hot douche.

Narcotic Notes.

The *Journal of Inebriety* (April) has the following:

Investigations in France go to show that the mortality among children of women working in tobacco is considerably more than double that of children of other working women.

Of 1000 cases of the morphine habit—650 men and 350 women—the medical profession supplied forty per cent.

Morphinomania occurs most commonly between twenty-five and forty.

The cocaine slave is far more depraved than the alcoholic. He has no moral sense. He will lie for the mere pleasure of lying, and will steal without purpose.

Patients should never know that they are taking cocaine. It should not be prescribed for asthma, hay-fever, etc., conditions in which it is, at best, merely palliative.

"Knock-out drops" are found to be uniformly highly concentrated solutions of chloral.

Bromides used for their sedative effects should be accompanied by hot baths and salines.

Chloral should not be combined with bromides for sedative effects upon inebriates.

Stop bromides with fall of temperature and feeble heart.

PEDIATRICS.

UNDER THE DIRECTION OF CHARLES G. JENNINGS, M.D.,

Professor of Practise of Medicine and Clinical Diseases of Children, Detroit College of Medicine.

A New Diagnostic Sign of Measles.

Dr. Henry Coplick, in the *Medical Record* of April 9, says: "This new phenomenon of measles appears only on the mucous membrane lining the cheeks and lips, and I have called this the buccal mucous membrane as distinguished from the mucous membrane of the other regions of the mouth, such as of the soft and hard palates and facies, which do not concern us here. The eruption or phenomenon or sign which I wish to describe appears on the mucous membrane of the cheeks or lips fully twenty-four or forty-eight, or even seventy-two, hours before the appearance of the eruption or the exanthema of the skin. It spreads and reaches its height just as the skin eruption has appeared and is spreading. It then fades. If we look into the mouth at the invasion of measles, there is nothing distinctive about the eruption on the pharynx or on the soft and hard palates. The throat at the beginning is reddened, the facies and the soft palate may be spotted, but this is also the case in many other affections, such as grippe, rötheln, ordinary catarrh, and scarlet fever. In the latter the redness is diffuse, not spotted. Looking into the mouth for this eruption, we find it in the mucous membrane lining the cheeks and lips. We see a distinct and pathognomonic eruption. This consists of small irregular spots of a

bright red color. In the center of each spot is the interesting sign to which I wish to call attention. In strong daylight we see a most minute bluish-white speck. These minute bluish-white specks in the center of a red spot are absolutely pathognomonic of beginning measles. I have never met them elsewhere, and when they are once seen they are a certain forerunner of the skin exanthema. These bluish-white specks, surrounded by a white area, are found, as I have said, on the mucous membrane of the cheeks and lips, and not on the soft or hard palate."

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Laryngeal Tuberculosis.

"The Progress in the Treatment of Laryngeal Tuberculosis since the Last International Congress" was made the subject of a short review by Professor Geitsman at the Moscow Congress. After a short introduction in which he stated that laryngeal tuberculosis was, for the most part, a local manifestation of a general infection, and that the number of cases cured in relation to the great number of those affected was exceedingly small, he classified the therapy in three divisions—the medicinal, surgical, and general.

He did not concur with Professor Stoerk regarding the uselessness of creosote, but prescribed both creosote and guaiacol carbonate. He had seen no success from the use of tuberculin or its derivatives in laryngeal tuberculosis. The local therapy consists of powder applications, inhalations, insufflations, injections, and topical applications. Botey used injections of guaiacol and creosote. Barton used, with success, in the same cases, benzoinol, europhen, menthol. Lactic acid, introduced in practise in 1885 by Professor Krause, is apparently the best known application for tuberculous ulcerations. Phenol sulforicinicum, in the hands of Dr. Ruault, and parachlorphenol, used by Dr. Simanowski and Dr. Spengler, accomplish not only healing of the ulcers, but also absorption of the infiltrate. This last peculiarity has been noted by many, and the reviewer had also verified it in practise.

Encymol, a new preparation, introduced by Dr. Murray, of Washington, is the best aid in case curettement is done and lactic acid applied, since by its use the detritus which covers the ulcer is quickly absorbed.

The surgical treatment consists of incision, curettement, submucous injections, electrolysis, galvanocauterization, laryngotomy, laryngectomy, tracheotomy, and intubation. Curettement has been much more commonly employed in the United States within the past two years than formerly.

The reviewer held that curettement was indicated:

1. In cases of primary laryngeal tuberculosis.
2. Where there is circumscribed infiltration of the larynx.
3. Where there is firm infiltration in the regio arytenoidea, the posterior wall, or the false chords.
4. In the first stage of pulmonary tuberculosis.

5. In more advanced pulmonary cases where painful dysphagia is present. Curettement is contraindicated:

1. If the lung affection is far advanced.
2. In case the laryngeal affection is disseminated.
3. In case there is marked infiltration which causes stenosis.

Of other surgical measures he mentioned submucous injections, for which purpose Dr. Chapell, of New York, used a solution of creosote in castor and wintergreen oils. The treatment with electrolysis by means of a spherical electrode of pure copper was introduced by Dr. Scheppegrell, of New Orleans, and has given good results.

In case of marked stenosis, tracheotomy, laryngotomy and intubation are indicated.

In closing, the speaker advanced the opinion that if the necessity for earlier surgical treatment in laryngeal tuberculosis was more generally appreciated, the results accomplished would be better than at present.—*Internationales Centralblatt für Laryngologie.*

A New Method for Operating in Chronic Antral Empyema.

Dr. Luc has proposed and described this method, which is in the main a combination of the Desault and Mikulicz operations. A wide opening is made into the sinus from the canine fossa and the cavity curetted and cauterized with strong chloride of zinc solution. An opening is then made from the sinus into the nasal cavity and a gauze drain introduced with a curved stilette. This makes it possible to disinfect the sinus from the nose and flush out the secretion. Afterward the mucous membrane over the opening of the canine fossa is sewed together, completely cutting off communication between the sinus and the mouth. After fourteen days the drain may be discontinued, but if necessary further washing out of the sinus from the nose can be carried out by means of a curved cannula. In three cases in which Luc had done this operation the opening from the canine fossa was closed in three days, and at the end of six weeks a complete cure had been effected.—*Monatsschrift für Ohrenheilkunde.*

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

Pterygium, a Common Eye Disease in Cuba.

In an exhaustive paper on "Pterygium and its Treatment," in the May number of the *Archives of Ophthalmology*, Lopez of Havana, Cuba, states that more than half of the male inhabitants of Cuba have pterygium. He remarks that pterygium is, as a rule, a disease observed in adults, being very rarely found before the twentieth year. It is rare to find the growth in women, and when found in them is usually in those living in the country. All races seem to present pterygium in about the same proportion.

According to this author the disease is more frequently seen in laborers, sailors, and cooks—in short, in all those vocations which expose the conjunctiva and cornea to the action of dust or other irritating substances. He emphatically asserts that pinguecula and pterygium are but different periods of one and the same disease. It is not rare to observe the evolution of pinguecula into pterygium. In recent years some have thought that pterygium is due to the action of some micro-organism, but the truth of this assertion has not been proved.

The author classifies the disease into two clinical forms: first, true pterygium; second, pterygoid or false pterygium.

In the majority of cases pterygia remain stationary before reaching the center of the cornea. In extreme cases in which the head invades the pupilary area the sight suffers considerable diminution. Pterygia should be removed before they have invaded one-quarter of the diameter of the cornea.

After describing the several surgical treatments of pterygium, the author concludes that the method of extirpation is the most rational one, the easiest to perform, and is the method employed by the majority of operators.

The author's method is performed as follows: After obtaining anesthesia by means of cocaine instillation, and introducing the speculum, the head of the pterygium is picked up with a strong pair of forceps, and detached by traction; the lateral attachments are now severed by two or three clips with the scissors, and then the growth is extirpated near the base. An important point is to dissect that portion of the conjunctiva near the corneal margin above and below, so as to avoid having these parts become reattached to the cornea. He does not insert any conjunctival sutures, as he claims they offer no advantage but produce a disagreeable scar, and the mucosa remains more or less hyperemic. After extirpating large pterygia, Lopez passes a double thread through the base—one above and the other below—so that the stump is strangulated.

Ocular Affections in the Early Stage of Syphilis.

Wilbrand and Staelin (Hamburg) examined the eyes of 200 patients in the early period of syphilis. They found disease of the eyelids in twenty per cent. of the cases, viz., hyperemia ciliorum, edema and redness of the lids, blepharitis ciliaris, alopecia, slight ptosis, and the like.

The conjunctiva was hyperemic in seventeen per cent., abnormally pale in five per cent. In ten per cent. there were papules on the mucosa.

The cornea showed unilateral parenchymatous inflammation in one case; the sclera in one case showed bilateral episcleritis.

There was iritis in five per cent., complicated with choroiditis in two per cent.

The optic nerve was affected in fourteen per cent. of cases, the affections comprising hyperemia, neuritis, retrobullar neuritis, and neuro-retinitis.

There was moderate contraction of the visual field in thirty-six per cent., due mostly to the disturbance of the general condition.

THE MEDICAL AGE

VOL. XVI. DETROIT, JULY 11, 1898. No. 13.

ORIGINAL CONTRIBUTIONS.

DIAGNOSIS OF THE GASTRIC CONDITIONS PRODUCING ISCHOCHYMIA (ATONY, GASTROPTOSIS, ATONIC DILATATION, OBSTRUCTIVE DILATATION).

BY A. L. BENEDICT, M.D.,

Professor of Physiology and Digestive Diseases, Dental Department University of Buffalo.

Symptoms.—Although the diagnosis of the conditions considered in this paper rests mainly on physical examination, the history of an intelligent patient is often quite significant. Most patients give a more or less detailed history of "dyspepsia" or "indigestion," often extending over a period of years and frequently of a rather regular remittent or intermittent character. There is nothing of the nature of true periodicity in the recurrence of the paroxysms, but they are apt to coincide with seasons of increased business strain, of bad weather, or of other depressing influences. Gas formation in the stomach and bowels is usually mentioned, but belching is conspicuous in only about half of the cases. Nausea is not always present, and vomiting is a rare symptom. While this is surprising at first thought, it is evident on reflection that a stomach which is able to evacuate itself spontaneously, either of gas, liquids, or solids, is relieved of one of the prime causes of dilatation, while conversely an atonic organ is apt to lose the power of emptying itself. In general, unless severe and repeated, vomiting is to be looked upon as a conservative process. On the other hand, we must remember that the foulness of retained and fermenting stomach contents may be sufficiently irritating to cause emesis from the weakest and most dilated stomach, especially as the muscular power of vomiting is furnished largely by the diaphragm and abdominal walls. In merely atonic cases, vomiting may occur several hours after eating, when the stomach should be empty, and some patients are in the habit of relieving themselves of irritating residue by running their finger down the throat. Rarely, one will find patients in a refined class of society who practise this method, as did the Romans in the early empire, for the sake of gratifying a gluttonous appetite. Whether a person empties the stomach to obtain relief after eating or to make room for more food and drink, the habit is strongly suggestive of an enlarged and weak stomach.

Most physiologies contain tables of the duration of gastric digestion after different kinds of food. These tables are of little practical value, as they deal

usually with meals of one viand. Penzoldt has performed experiments and compiled tables intended to allow almost any form of food to be utilized as a test meal, but his work is of only slight use to an American physician, on account of the differences in fare between this country and Germany. The following empiric statements may be considered approximately correct for persons in average health and living a rather sedentary life: Broth with crackers or toast in small quantity, one hour; bread-and-milk meal, one and a half to two hours; light meals of fresh meat, bread and butter, plain vegetables, beverage, and fruit, three hours; hearty meals of about the same scope but with pastry, four to six hours. In cases of obvious gluttony, as after a banquet, the stomach should be considered normal if it is empty in ten hours, including the time usually spent in sleeping. Generally speaking, the stomach empties itself through the pylorus more slowly during absolute rest and sleep or during extreme mental and physical strain than it does during moderate activity.

In cases of mild stagnation, which may correspond to atony, gastroptosis, or slight dilatation, viands of the evening meal may be vomited in the morning, or after the midday meal remnants from breakfast may appear. In severe cases the delay of food increases, not proportionately to the size of the stomach and not necessarily to the grade in which the case would be classified, but according to the local conditions of weakness of muscle and obstruction at the pylorus. These conditions, especially the former, may be not only local but temporary, thus each case must be judged on its own demerits and after somewhat prolonged acquaintance. It is, of course, immaterial so far as estimating stagnation is concerned, whether a specimen of stomach contents is obtained by accidental vomiting or by the use of the tube. The writer has a raisin seed retained in the stomach seven days, and pulpified sausage skin dating back ten, eleven, and twelve days, respectively. The case was one of moderate dilatation, accompanied with malignant disease, but not of obstructive nature. The patient was quite unable to clear the stomach by vomiting.

PHYSICAL EXAMINATION.

Inspection.—In rare cases the outlines of a dilated stomach as well as of other enlarged or displaced abdominal organs may be seen. Rarely, one can see at a glance whether the case is one of genuine dilatation or of gastroptosis, that is, prolapse of the stomach on account of stretching of its ligamentous support. In general splanchnoptosis many authors lay stress on the appearance of a cord—or rather rope—due to the prolapse of the transverse colon. By inspection, the writer has been able to make out the site of the stomach and colon in a few instances, but the colon, if apparent at all, has suggested a sausage rather than a cord. The same remark applies to palpation.

If the muscular power of the stomach is sufficient and the abdominal wall quite thin and lax, gastric peristalsis may be visible. When there is obstructive dilatation, the muscular wave may be so strong as to suggest the older cardiac nomenclature of dilatation with hypertrophy.

Inspection often gives valuable hints as to conditions complicating gas-

troptosis or dilatation. Malignant cachexia, jaundice of gross biliary obstruction, jaundice of interstitial and catarrhal hepatitis, slight sallowness of the purer interstitial form, the dry, rough, scaly skin of malnutrition and particularly of combined gastric and hepatic "indigestion," the scratch-marks —in the absence of definite eruption—of pruritus which is most typically connected with hepatic sclerosis, evidences of venous stasis, dropsy, etc., are all of indirect assistance. Gaseous distention indicates fermentation and suggests stagnation. The demonstration of habitual dragging upon the stomach by belts and bands is of almost diagnostic value.

Palpation.—By this method are verified the results of inspection with regard to the size and location of organs, the presence of dropsy either in the skin or abdominal cavity, the distention of the stomach or intestine, the existence of a peristaltic wave, etc. The diagnosis of general splanchnoptosis depends very largely on palpation, and the question as to whether we have to deal with gastroptosis or gastric dilatation is tantamount to asking whether the stomach is prolapsed by reason of ligamentous or of muscular failure. As atonic conditions of the stomach are usually accompanied by constipation till stagnation produces excessively irritating chyme, the presence or absence of fecal masses, especially in the colon and sigmoid flexure, is indirectly of diagnostic importance.

Percussion.—The percussion note of the stomach depends on the state of its contents. If distended with gas—from fermentation, or artificially by the alternate administration of a carbonate and an acid, or by inflation through the stomach tube—its tympany is easily distinguished from the notes of adjacent organs except the colon. The last differentiation requires a rather delicate distinction of musical pitch. The larger cavity—usually the stomach—has the lower pitch, but the difference is seldom greater than a semi-tone. So far as can be demonstrated by external examination, the lower border of the gastric area is normally about an inch above the umbilicus, and the lowest point of the fundus is half-way between the median and the axillary line and three-quarters of an inch above the umbilical level. Several hours after a meal the tympanitic area should be a small ellipse, lying obliquely, with its lowest point an inch or more above the umbilicus.

If 250 to 500 cubic centimeters of water is introduced into the stomach, colic and gastric tympany are separated by a zone of flatness. Not only is a sharp contrast afforded by this method, but it may be used as a test of resiliency. So small a weight of water should dislocate a normal stomach to a scarcely appreciable degree, but a dilatable organ will be more or less depressed and distorted. This test is particularly valuable in the case of stomachs which are well contracted when empty, so as to present a normal outline, but which are really in a state of ptosis or dilatation when full. A dilated stomach, being too large and too weak to contract firmly on its contents, presents shifting areas of collapse and distention, with corresponding movable spots of dulness or flatness and of tympany.

Auscultatory Percussion.—It is no longer necessary to argue in defense of this method nor to enter into a discussion of technique. It gives the same results as ordinary percussion so far as outlining organs is concerned; it fails

almost entirely to distinguish the vibratory quality of the organ examined; it is learned only by considerable practise, but, once learned, it is far easier and more reliable than ordinary percussion. Considering the convenience of both physician and patient, this method is practically the only one to be employed to determine the size and shape of the stomach, unless some special consideration demands corroboration. A possible error must be guarded against: twice at autopsies the writer has mapped out an area supposed to be the stomach, but which proved, on section, to represent the inflated and displaced splenic flexure of the colon. In each instance the area itself was correct, but the supposition as to its organ incorrect. Whether such a displacement could occur without the enormous gaseous distention and almost absolute muscular relaxation of death is not known. Of course, no mechanical method of examination can do away with the necessity of relying on judicious inference as to the nature of the part under consideration.

Auscultation.—By patient examination—and here a stethoscope with long rubber tubes saves much discomfort—one can get a quite accurate idea of the time and manner in which the stomach contents are pushed through the pylorus. The churning power of the stomach and the relative amounts of liquid, or semi-solid, and gaseous contents can be determined in a few minutes.

By auscultation while the patient drinks a small quantity of dissolved and suspended bicarbonate of sodium, the acidity of the stomach may be inferred. The test is best applied an hour or two after a meal which corresponds rather closely to the light test meal. Rustling of garments, injection sounds at the cardia (which are described by Ewald, but which do not seem to have much practical significance) and induced peristalsis and gurgling must be carefully excluded. If nothing is heard—as is usually the case in the diseases under discussion—let the patient drink a wineglassful of water containing two or three drops of dilute hydrochloric acid. A distinct crepitation will then usually be heard, showing that the test has failed from no fault in technique but from real lack of acidity. Marked organic acidity may cause effervescence, but the diagnosis between a secretion containing enough hydrochloric acid to produce the phenomenon and an enormous vegetative fermentation in the lack of hydrochloric acid is extremely easy, even from the symptoms. It is undoubtedly true that hydrochloric acid may coexist with organic acids, but an abundance of either is incompatible with the presence of considerable quantities of the other. As an important part of the treatment of motor diseases of the stomach consists in securing proper acidity and in preventing malfermentation, this test is of great practical value though not logically connected with the diagnosis of the state of the gastric walls. Although I have previously reported this method, it does not seem to have attracted much attention.

Succussion.—This method applies to the stomach as to any other cavity containing liquid and gas. It is not of value simply to determine the presence or absence of dilatation, except by careful localization of the extent of the waves, as it may be obtained in the normal organ, and as it is never conspicuous till the diagnosis becomes easy by various other means. Its principal use is to determine whether the stomach is or is not empty at a time when it

normally should be so. I am surprised to learn how much dependence Einhorn and others place on this method, as it is far less manageable than auscultatory percusssion.

METHODS INVOLVING INTRODUCTION OF INSTRUMENTS.

Stomach Tube.—The soft-rubber tube is in no sense a sound, bending too easily in conformity with the greater curvature to resist the introducing hand or to be felt externally. While external methods inform us as to the size and shape of the stomach, inspection and chemic examination of the contents are necessary to a thorough and systematic exposition of the motor, absorptive and secretory functions, though in many cases the passage of the tube may be avoided. The would-be scientific substitutes for careful examination of chyme are, on the whole, not so reliable as the information obtained by physical methods and a consideration of the history. The iodide tests for albuminous digestion and absorption and the salol test for motion are quite unreliable. The last, as bearing directly on the diseases here discussed, requires some attention. Perhaps the most conclusive proof of its unreliability is that its elimination in the urine requires just about the same time in nine-tenths of the cases in which it is given, and that in a healthy person the delay in the system is practically the same whether it is administered immediately after a meal or at the time when the stomach is emptying its contents through the pylorus most energetically. Its absorption may be delayed, in cases of normal motility, by relative or absolute slowness of alkaline digestive secretion, and, on the other hand, deficient gastric acidity and abundance of mucus may cause it to be rapidly absorbed from a sluggish stomach. In short, the only reliable ways of determining when the stomach empties itself are to see and feel that the stomach is empty. The bulk of gastric contents is diagnostic. After an Ewald breakfast with 300 cubic centimeters of water, 100 cubic centimeters may normally be expressed after an hour's digestion (Hewes). This quantity is considered indicative of stagnation by most writers. The fasting stomach should be practically empty.

External Examination for Intragastric Instruments.—A varnished fabric tube, or a sound of sufficient length and reasonable elasticity, may be used to locate the greater curvature. The reflex seizure of the instrument by the esophagus and cardia, and the softness of the stomach wall, render it not only useless but dangerous to attempt to locate the distance of the fundus by the muscular sense of the introducing hand. The sound must, therefore, be felt by the external hand. Kellogg, of Battle Creek, has devised several forms of intragastric bells and electric rattles or buzzers, mounted on elastic staffs so yielding as to glide over the greater curvature, which is located by auscultation. The general method is susceptible of many modifications.

Gastrodiaphany.—This method has been so thoroughly discussed and illustrated by others—chiefly by Einhorn in this country—that the writer will refer to only one or two points. Turck has made the use of a rather strong electric light possible without burning the stomach, by enclosing the bulb in a bag of rubber dam which may be distended with water after the light is introduced into the stomach. A stomach tube with permanent glass cap, enclosing

an incandescent lamp and allowing a circulation of cool water, has recently been placed on the market.

Considering economy and portability, a diaphane should be run by a few dry galvanic cells, and should have a high candle-power in proportion to its voltage. The stomach must be carefully guarded against danger from burning and from breakage of glass. The writer's diaphane contains a lamp of four candle-power and six volts—more or less, within quite narrow limits—enclosed within an annealed glass vial, the insulated wires entering through a rubber cork. The vial is pushed up into the stomach tube, so that the lamp is opposite the lateral eye. All unions are rendered water-tight with rubber cement. In order to inflate through the same instrument, a small rubber tube inside the large one is brought into a minute lateral puncture above the electric light and cemented in place so that no leakage of gastric contents can affect the insulation of the wires. On account of the outer vial, so little heat is radiated that the current may be kept on for three minutes. Four dry cells furnish the current.

X-Rays.—In *Medicine* for February, 1898, the writer has reported an original method of locating the stomach by means of fluoroscopic examination for a capsule containing reduced iron, bismuth subcarbonate, or any similar harmless powder or tablet opaque to the *x*-rays. This method was reported to the Buffalo Academy of Medicine in September, 1897. A recent article of Boas in the *Deutsche Klinische Wochenschrift* proposes a very similar method, save that the capsule is of celluloid, in order to allow its course through the intestine to be traced. Turck, of Chicago, reported in 1897 the use of an ivory-tipped bougie in the stomach, to cast a shadow on a fluoroscope.

Hydrostatic and Hydrodynamic Tests.—In spite of the great interest attaching to such methods, from the standpoint of applied physics and the wide range afforded for the exercise of individual ingenuity, it must be admitted that these tests are not of great practical value and are liable to be dangerous if the physician forgets for a moment that he is dealing with delicate animal structures. The simplest method of estimating the degree of dilatation of the stomach is to fill it with water and measure the outflow. The inflow is not a reliable index, as there is usually some leakage through the pylorus or, possibly, absorption, though most physiological experiments show that the absorptive power of the stomach for water is very slight. But direct measurement of the capacity of the stomach, however correct from the physical standpoint, is utterly unjustifiable, there being immediate danger from shock and cardiac embarrassment, while the breaking of a cicatrized ulcer or peritoneal band may cause rupture into the peritoneal cavity. If no accident happens, the weight of water which a dilated stomach will hold is sufficient to counteract the beneficial results of weeks of treatment.

Under ordinary circumstances the water in the funnel of the stomach tube stands about a quarter of an inch higher than the line between flatness and tympany in the stomach. This difference represents the tone of the gastric wall plus the pressure of parts external to the stomach. The respiratory wave is plainly seen. The expulsive force noted is a guide to the irritability of the stomach but scarcely to its strength, the gastric muscle being of much less

importance in vomiting than the diaphragm and abdominal muscles. Still, a very sluggish stomach will be almost entirely free from reflex efforts at expulsion of its contents.

Some information as to the resiliency of the stomach may be obtained by noting the difference in position of the fundus as water is added. Under normal circumstances, even 500 cubic centimeters of water will cause slight sinking and almost no change of arc of the greater curvature. A dilated stomach, or one which is essentially weak, will sink as water is poured into it. This sinking may be observed both in the water-level in the funnel and by external examination. No amount of theoretic study or experience will make it possible to gauge the size of the stomach accurately by differences in water-level. Differences in resiliency, in motor power, in irritability resulting in reflex contraction either of the gastric muscle or the auxiliary muscles, or both, constitute so many unknown quantities that the mensuration of the stomach by the successive introduction of increments of water is impracticable.

H. Beck, of New York, describes in detail, without claiming originality, a simple hydrostatic method of determining the lower level of the empty stomach. Divesting his apparatus of accessory parts for filling and aspirating the stomach, it consists of a funnel with a long glass tube which is held in front of the body while taking the level, and which is connected by a rubber union with one arm of a glass Y. With another branch of the Y is connected a short stomach tube, and with the third arm an outlet tube passing to a jar on the floor. The stomach tube must pass just to the fundus of the organ. To insure this condition a very small quantity of water is introduced and siphoned out, before the funnel is connected. The stomach is then filled again through the funnel, which is quickly depressed, and the level of the fluid outside is noted. The water is then siphoned away, that in the funnel and long glass tube falling *pari passu*. When the stomach is exhausted, the water ceases to flow from the outer tube as well, and the level at this moment marks the height of the fundus of the empty stomach.

The writer would point out the following sources of error: (1) Whether from a reflex grasping of the end of the tube or some other cause, siphonage is seldom perfect from the stomach, even if the tube completely fills the esophagus. The failure of siphonage is almost always troublesome at the first seance. Thus the preliminary test to insure the resting of the tube on the fundus of the stomach may fail. (2) While Beck states that it makes no difference whether the open end or the lateral eye of the tube rests on the fundus, it must be evident that a serious source of error is introduced in using a tube with openings at different heights. (3) We can scarcely be sure that the cardia and pylorus are so perfectly closed as to insure an absolute vacuum. (4) Even if no gases enter through the natural openings of the stomach, the parts are so soft and movable that the weight of water in the external tube can scarcely fail to produce enough suction to draw up the lower wall of the stomach, while the error is doubled by the consequent fall of the external level. However, approximate results may be obtained by this method and by a little dexterity, and the single tube may be used to determine the same fact.

Pneumatic Tests.—The inflation of the stomach has already been mentioned under the head of percussion. Except as a matter of convenience, the writer would prefer the introduction of air through the tube by means of a bulb to the successive administration of a carbonate and an acid, since the latter method cannot be regulated. By having an assistant blow air into the tube, and auscultating, the results of external examination may be verified. Sometimes the open end of the tube can be brought in contact with the fundus, and the puff of air, as the contact is broken, is quite distinct; or, by introducing a little water into the stomach, and blowing air through the water, the metallic tinkle of bubbles bursting at a level only a trifle higher than that of the fundus can be heard. Both these tests presuppose the use of a single endo-gastric opening. The quantity of water for the second test should be as small as possible—about 100 cubic centimeters—so as to depress the fundus as little as may be and to have the least difference between the greater curvature and the water-level.

Various modifications of these hydrostatic and pneumatic methods may be used at different times. Considering ease and safety of application and the convenience of dispensing with an assistant, the writer considers auscultatory percussion as the best physical means of examination and the one which may, in most cases, be used to the exclusion of all others. Knowing the size and shape of the stomach, its chemical powers and the degree of stagnation, the indications for treatment are quite thoroughly known. It is apparent that no arbitrary line can or need be drawn between ptosis and dilatation, and that, in practise, more attention will be paid to the motor power of the stomach and the sagging of the fundus below the pyloric level, than to the actual size of the organ. A comparison may again be made to the heart, in which the differential diagnosis between hypertrophy and dilatation is made rather on physiological than anatomical grounds.

THE TREATMENT OF PUS IN THE PELVIS.*

BY H. W. LONGYEAR, M.D., DETROIT,

Gynecologist to Harper Hospital; President of Medical Board of Woman's Hospital; Clinical Professor of Gynecology, Detroit College of Medicine; Commissioner of Board of Health of City of Detroit, etc.

The peculiar conformation of the genital apparatus of woman causes her often to become the victim of suppurative inflammation, which is usually the result of infective material introduced from without through the natural channels. The continuity of mucous surface formed by the canals of the vagina, uterus, and Fallopian tubes, connecting, as it does, the outside of the body with the peritoneal cavity, is a weak point in construction, and renders woman liable to certain forms of destructive disease from which more fortunate man is exempt.

The gonococcus may invade the male generative organs and do his worst, but he cannot invade the peritoneal cavity. The virus may find its way to the testicles or the seminal vesicles and set up serious trouble in these organs, but

*Read before the Upper Peninsula Medical Society, June 29, 1898.

no abdominal section, with its consequent dangers and mutilation, is required to effect a cure. Fortunately for woman, Nature has provided in the natural secretions of the vagina and uterus an effective barrier against the ordinary forms of infection. Disease, however, often causes a change in these secretions, and thus the citadel is left unprotected and the enemy easily gains entrance. The gonococcus finds a foothold on a small abrasion, and the consequent infection and inflammation change the character of the secretions, and thus invite the presence of other infectious germs. A mixed infection thus often results, and in some cases the gonococcus will be destroyed and supplanted by the later germs of invasion.

A latent gonorrhea existing in the vagina of the pregnant woman becomes active after parturition, and invading the uterus, where it finds favorable soil for its rapid growth, causes one of the many forms of puerperal infection to be manifest. The activity of the disease may expend itself entirely on the uterine endometrium, and the patient make a good recovery and apparently be none the worse for the attack. When, however, the Fallopian tubes are invaded, with the consequent local peritonitis and tubal abscess, the ultimate recovery of the patient without operation is a result occurring but seldom and not to be expected.

The gonorrheal infection of the non-puerperal uterus, and the extension of the disease into the Fallopian tubes, with the resulting tubal and tubo-ovarian abscesses, is a process more readily understood, and one with which we are all more or less familiar. The true nature of the puerperal form is very liable to be overlooked unless diagnosis by bacteriologic examination is made.

While I concede that it is possible for other forms of puerperal infection to cause tubal abscess, yet, as pus in the pelvis has, in my opinion, always been the result of gonorrheal infection, excepting in a few rare forms of tubercular disease, in the cases which have thus far come under my treatment and observation, all treatment which I shall advocate will be based on this etiologic factor.

Prophylaxis.—If gonorrhea could be suddenly stamped out of existence the pelvic abscess would become almost an unknown disease, the days of woman would be much longer and happier in this world, and the practise of the science and art of abdominal surgery would be limited to a field of less than half its present area of action. This is a desideratum not to be looked for except in the imagination, but if the dissemination of the gonococcus can be limited so that its ravages may cover a smaller field of activity, a concerted effort of the profession and laity should be made to that end. I say "the profession and laity," as I believe this end can be reached only by properly directed educational methods, which could only be inaugurated by a combined effort.

The idea that is so prevalent among the uninformed, both in as well as outside of the medical profession, that gonorrhea is a simple and harmless disease, limited to a few days' duration, and likened to a common cold, should be replaced by a true understanding of the facts.

The teaching of morality and the fear of everlasting damnation may save some from the sufferings of hell, both in this world and the next, but among

intelligent people an absolute knowledge of facts with the fear of the known results of sinning against Nature will surely accomplish much more.

It is on this line of education—education of the people—that our State and local health departments are working in their increasingly efficient endeavors to stamp out the ordinary contagious and infectious diseases. Why not apply the same prophylactic remedy to the venereal diseases?

Such education should be begun with the young men in our schools, and physicians delegated to teach them these things about themselves, which will not only save them from the result of ignorantly going into danger, but will also save many who are to become dear to them from innocently suffering because of such ignorance.

Our youth should not be handicapped by unnecessary ignorance. Armed with the true knowledge of the nature of the foes they are to meet in the struggle of life, the battle will not, as is so often the case now, be against them and theirs.

The danger of infection, in every case of gonorrhea in the male, should be considered probable so long as any discharge is present. The so-called latent cases are productive of much mischief in the causation of gonorrhea in the female. The frequent occurrence of cases of honeymoon peritonitis, that we are all familiar with, furnish a pointed illustration of this fact. These attacks are the most common cause of sterility, and the victims of them are the women whose husbands, in after years, may be heard reproaching them for their inability to bear children.

Every woman showing a suspicious discharge from the vagina should receive prompt and vigorous treatment, the first object being to confine the disease to the vagina and prevent its entrance to the uterus. A few thorough applications to the inflamed parts of Goodell's endometritis mixture (composed of pure iodine and carbolic acid one part each, and chloral hydrate two parts), followed each time with a vaginal packing of iodoform gauze, will usually suffice to cut short the disease when confined to the vagina. The application should be repeated two or three times at intervals of three days. Abraded surfaces can then be very satisfactorily treated by daily drying and dusting freely with stearate of zinc, and the continuance of the use of the gauze.

When the disease has invaded the uterus the same treatment is to be applied to the vagina, and, in addition, the iodine mixture carried up into the uterine cavity. I accomplish this by injecting a small quantity of the fluid up to the fundus of the uterus, and then applying it thoroughly to the surface of the endometrium with either cotton on an applicator, or with the forceps in cases of puerperal uteri. In puerperal cases this application may be made daily for three or four days, with the use of the douche to wash out the detritus after each treatment. Drainage, by means of a self-retaining tube, is useful in such cases when a flexion prevents the free exit of the discharges. Curettage should be avoided, as it only lays bare more surface for the growth of the infection, and removes nothing that will not come away by the use of the application and douche.

Therapeusis.—When pus has formed in the Fallopian tubes its removal by

operation is usually the only means by which the abscess can be cured and the patient restored to health. The inflammation which precedes its formation so acts as to close both extremities of the tube, thus resulting as a protective agency in preventing the escape of the pus into the peritoneal cavity at the distal end, while the seal at the uterine end acts in opposition to the welfare of the patient by preventing the discharge of the pus through the uterus—the only safe, natural channel for its escape. In neglected cases, Nature sometimes attempts relief by forming a communication between the abscess and bowel or vagina, and occasionally this is successful in establishing a cure, but the usual result is incomplete evacuation, further infection of the abscess cavity, and the establishing of fistulous tracks which act as constant sources of irritation and depletion to the patient.

Curettage and packing the uterus with gauze will not drain enough of these cases to make the procedure justifiable, as it has the disadvantage of often setting up a peritonitis, by reason of the manipulation breaking up adhesions at the fimbriated extremity of the tube, which permits the pus to be liberated and infect the peritoneum.

Pus in the pelvis, whether it is confined in a distended tube or ovary, or whether, having escaped from its seat of origin, it is in the shape of a more diffuse abscess in the pelvic cavity, must be treated by such active interference as will result in its removal, just as pus is treated in any other part of the body.

The only question at issue is one of method. Shall the object be attained by simple incision and drainage through the vagina, without considering the removal of the diseased parts? Shall a vaginal hysterectomy be done and the uterus with its diseased appendages thus removed with the pus? Or shall the abdomen be opened above the pubis and the pus with the distended tubes and ovaries be removed by this route, leaving the uterus *in situ?* These are the three methods most prominently advocated, each being adapted to cases properly selected for it, while neither can be successfully used to the exclusion of the others.

Simple drainage by vaginal incision will occasionally result in the permanent cure of the case, but as a rule the operation must sooner or later be followed by the more radical operation of removal of the diseased appendages, which constitute the pus sacs, as they rarely recover their normal condition and their presence is often the cause of future suppurative action. Fistulous tracts between them and the vagina are also liable to persist for a long time.

The fact that pus tubes are usually composed of multiple abscesses with enormously thickened walls would of necessity militate against the broad usefulness of this operation, as such cases cannot be properly drained by it.

The only cases in which, in the writer's judgment, the operation is admissible, are those in which the patients have been greatly reduced from sepsis and long duration of the suppurative process, with the abscess situated low in the pelvis and easily accessible from the vagina. In such cases the operation of drainage may be made with a fair hope of cure, but even when this end cannot be attained it is of very great value to the patient, as it gives immediate relief with little or no shock, the septic condition rapidly diminishes, and the patient is thus permitted to regain strength sufficient to withstand the more radical operation at a subsequent time.

Removal of the pus by the use of the aspirator is occasionally justifiable in similar cases, for the purpose of gaining immediate relief, but the operation is usually unsatisfactory, as the relief is of short duration, and other and more radical measures must soon follow.

The operation of vaginal hysterectomy is the favorite French method for the treatment of collections of pus in the pelvis. With this method it is often not possible to remove the pus sacs entirely, and free drainage is relied on to effect a cure in such cases, which with the large opening resulting from the removal of the uterus is more efficacious than the treatment by simple incision and drainage, although the remaining portions of pus sacs usually cause continued suppuration and protracted convalescence.

As the operation necessitates the removal of the uterus, whether it be seriously diseased or not, and the appendages of both sides, even though the disease may be but unilateral, this method which is now so popular as to have become a fad, so to speak, with many of our own surgeons, will doubtless, in time, be used only in carefully selected cases. The operation is the safest and the more preferable one in every way for those cases in which the uterus has become extensively diseased, the appendages beyond redemption, the diseased parts situated low enough to be reached from the vagina, and the patient suffering profoundly from sepsis and exhaustion.

The operation is not usually a difficult one; in fact the technique is so much easier and can be more often followed according to given rules than is the case with the suprapubic method, that operators who wish to do the *easiest* work will be inclined to class all cases possible into those requiring vaginal hysterectomy. This is certainly the tendency with a large number of abdominal surgeons at the present time, and it is unfortunate that it is so, as it is demoralizing to correct and painstaking work, to say nothing on the side of humanity, which certainly deserves serious consideration in the sacrificing of healthy uteri and other organs, which occurs as a result of the adoption of this system of wholesale vaginal hysterectomy.

The suprapubic method is the only one which permits of thoroughly scientific work, with the digital and ocular examination necessary to the conservation of healthy organs. By it, also, injuries to intestines and other viscera, resulting from the breaking up of adhesions, may be readily found and repaired, which it is practically impossible to do in many of the cases in which the vaginal method is employed.

The appendix vermiformis is often unexpectedly found to be coincidently diseased with the pelvic organs, and when this is the case the complication is usually not discovered during the operation through the vagina; but when it happens to become apparent by being dragged down with the organs that are being removed, its proper removal is naturally very difficult through this channel. The suprapubic incision, on the other hand, renders the treatment of this complication almost as simple as an appendectomy made in the usual manner.

The use of the Trendelenburg position has rendered the science and art of abdominal surgery an immense service by making possible exact mechanical work within the pelvic cavity. With the patient in this position, gauze pads protecting the intestines from exposure, and the abdominal incision well

opened with retractors, the most complicated adhesions can be broken up, all bleeding points seen and secured, and perforations of the bowel can be readily discerned and repaired, even when occurring deep in the pelvis.

By careful manipulation the adhesions may usually be broken along the lines of cleavage and the distended tubes and ovaries detached from their uterine and pelvic moorings and removed, without soiling the field of operation by rupture of the pus sacs. Every effort should be made to remove them in this manner, so that the operation may be finished in an ideal manner by the use of the buried animal suture and collodion seal in the closure of the abdominal incision. Drainage is thus avoided, and with it the danger of post-operative infection and hernia.

When, however, the pelvic cavity has become soiled, it is fair to suppose that the pus is infectious (in old abscesses it is sometimes perfectly sterile), and the pelvic cavity should be thoroughly washed with a douche of normal saline solution. When the douche is used the patient should be let down from the Trendelenburg position and the abdominal pads of gauze left in place to prevent the water from entering and carrying infectious material into the abdominal cavity. In many cases treated in this way the drainage tube will be found to be of negative value as no suppuration will be noted, and it can be removed in two or three days. When suppuration occurs the tube must be left in till such action ceases, and during its use it should be kept as nearly empty as possible by the frequent use of a suction syringe constructed with a long nozzle, so that the fluid can be removed from the lower end of the tube.

The well known recipe for making rabbit stew, it will be remembered, begins with the valuable advice to "first catch your rabbit." The same point may well be made in the directions for the treatment of pelvic abscess: First, *make your diagnosis*. This may seem unnecessary advice to those who see many of these cases, and who by long experience are enabled, when the old, familiar and oft-told history of one of these sufferers is unfolded, almost to make a diagnosis without the formality of a physical examination. To the general practitioner whose circumstances permit him to see these cases but seldom, the warning will not be unnecessary. They are not always easy to diagnosticate, and unless the physician is familiar with their peculiar history and has experience in gynecologic work, he is liable to make the error of wrong diagnosis. I know this is so from the fact that a large proportion of cases of pelvic abscess of long standing which have been operated on by me have given evidence in their histories of having been treated for a variety of diseases. Typhoid and malarial fevers, peritonitis, cystitis, metritis, enteritis, parametritis, ovaritis, uterine and ovarian displacements and ulceration of the rectum are some of the diagnoses that my case-book shows to have been made in these cases, with apparently no suspicion of the presence of pus in the pelvic cavity.

I know of no operation in the domain of surgery that offers more surprises, that requires more perfection of detail in technique, and that tries the endurance, patience and skill of the operator as do some of these, and yet there is no branch of surgical work that yields such satisfactory returns in the way of mitigation of suffering and the saving of health and life.

IN MEDICAL CONCLAVE.

DETROIT MEDICAL AND LIBRARY ASSOCIATION.

At the regular meeting held Monday evening, May 23, 1898, Dr. H. E. Safford read a paper entitled "The Present Status of the X-Ray in Diagnosis." The following is a condensed report of the paper:

This new principle of radiation was discovered, as is well known, by Prof. W. H. Roentgen, of Wurzburg, Bavaria, in 1895, who had been working for a considerable length of time on the cathode rays, which had been recognized and more or less thoroughly investigated by Crookes and Hittorf some time before. Roentgen and also Leonard had shown that the cathode rays possessed essentially the properties of light in that it was possible to cause them to be reflected, refracted, and polarized, and to deflect them from their course by magnetic influence. Professor Roentgen noted certain rays which proceeded from the anode when the exhaust was carried high enough in the Crookes tube. At about one-millionth of an atmosphere the cathode rays are produced, and gradually as the vacuum rises we are made to see the rays that he described, which are made known to the unaided eye by a peculiar golden-greenish fluorescence upon the inner surface of the glass, and which increases until the vacuum becomes too high for the current used. What these rays were Roentgen did not presume to say. He leaves the question unsettled in his first paper; and while acknowledging that in the shadow pictures and the actinic power of the rays he saw some connection with ultra-violet light, he was disposed to open the question whether they might not be a longitudinal vibration in the ether, whereas the ordinary spectrum is represented by a transverse vibration. The first workers with the *x*-ray thought of it as coming chiefly from the source of fluorescence at the inner surface of the tube, and there is no doubt that they do arise here, but further investigation points to the anode as the real source. Attention has been called to the fact that aluminum would cause the generation of the rays as well as glass.

The essayist here drew attention to the two different sources of electric energy employed, viz., the induced current in the secondary circuit of the induction coil and the current of the static machine, and gave a detailed account of the technique involved in the production of the skiagraph. He also called attention to the dangers arising from a lack of proper knowledge in the manipulation of the current, and cautioned against too long exposure as likely to result disastrously to the parts in the field of vision.

Of the special application of the *x*-ray to diagnosis, and in assisting to carry out an indicated line of treatment, the essayist mentioned a few of both the surgical and the medical possibilities. Among the former we must concede that thus far its greatest service has come in conditions where foreign bodies are lodged in the tissues or organs, and in those where the osseous system is implicated; while among the more strictly medical affections, those involving the thorax give, in the hands of the expert, no small degree of promise. Aside

from grounds of diagnosis and treatment, there is sure to be a wide field for the use—and the abuse as well—of the ray in legal medicine.

In conclusion the Doctor said that although it may be that little remains for us in the way of immediate improvement and extension of the means at our command, yet we have enough with the problems already presented for scientific observation to keep busy many active minds for the solution of the latter. Keeping pace with this active interest in the possibilities of the method will go the value of its every-day application. It now rests with the professional man rather than the scientist, the amateur or the merely commercially interested to add most to its value, for he is in a better position to find access to the material for observation and should be able to interpret the results obtained.

Dr. Heneage Gibbes read a brief paper entitled "Some Points in the Development of Carcinoma which Should be Considered when Endeavoring to Arrest its Growth," illustrated with stereopticon views of the different varieties of carcinoma, at the meeting of the Society held Monday evening, May 30, 1898. He divided carcinoma into three different forms: Squamous epithelioma, columnar epithelioma, glandular carcinoma. In all these varieties the cells form the only neoplastic structure—that is, they are the only individual items of the neoplasm which are truly abnormal. All the fibrous tissue and blood-vessels, when they exist, are perfectly normal in their development and function although affording nourishment and support to abnormal growths. Before we can devise any method by which we can arrest the growth and destroy these neoplasms, or, in other words, cure carcinoma, it is highly important that we should clearly understand the way in which they grow and the differences in the growth of the different varieties. Efforts to treat them along this line of investigation have never been attempted so far as the essayist knows.

The first variety of carcinoma is the squamous epithelioma, which consists entirely of squamous epithelium similar to that in the rete Malpighi from which it grows. It has a downward irregular growth, pursuing the same course as is followed in the development of the dermal appendages such as teeth, hair follicles, etc. As the epithelial processes grow downwards, secondary processes grow from them at right angles, which upon being cut transversely give rise to the so-called nests or pearls. Cells from these processes are carried away in the lymph stream, setting up a secondary growth in some distant part. As these processes push their way into the cutis vera they produce no change in the connective or mesoblastic tissues. This is an important feature, distinguishing these growths from glandular carcinoma.

The next form is columnar epithelioma, and this variety must be classed with squamous epithelioma from its mode of growth, and also because it does not affect the surrounding tissues into which it grows.

There is an entirely different condition when we come to consider the glandular carcinoma. Taking the mammary gland as an example, normally we have a single layer of secretory epithelium on a basement membrane. In the growth of columnar epithelioma the development is outward from the lumen of the acini, whereas the earliest appearance of carcinoma is shown by

an increase of cells inwards resulting in the formation of several layers, which go on increasing until the lumen of the acinus is filled up, the basement membrane absorbed, and a mass of cells grows widely in every direction. This abnormal growth immediately affects the surrounding tissue, new blood-vessels are formed for its nourishment, and the fibrous connective tissue of the part sends out new trabeculæ to form a sustaining tissue for the abnormal growth.

While there is a wide difference in these varieties they yet possess one feature in common—the ability of each cell to reproduce a new growth similar to the primary, when separated from it. Carcinoma is therefore simply an overgrowth of cells under an abnormal influence. Whether the difference in the mode of growth is caused by some difference in the abnormal influence producing it, or by the functional peculiarity of the parts affected, the essayist was unable to say, but he does think that any method that may be tried for the purpose of arresting the growth should be based on these differences.

The transfer of bacteria by subsurface water has lately been tested by a number of experiments in a clearing of the forests bordering on the Rhine near Strasburg. In an elaborate article by Prof. E. Pfuhl in the *Zeitschrift für Hygiene*, it is stated that two pits were used in the tests. One was 3.3 feet deep, and in it the ground water rose to within about 1.6 feet of the surface. The other was 24 feet distant, in a line perpendicular to the direction of the flow of the subsurface water. This second pit was 4.9 feet deep, 3.3 feet wide, and 39 feet long. Two species of bacteria, micrococcus prodigiosus and the fluorescent vibrio, which do not occur in the Rhine, were selected for the experiments. The cultures of these species were introduced into the first pit, and at intervals of about half an hour samples were taken from the second pit and cultivated in the usual way on gelatin or agar plates. It was found that in an hour the micrococci, and in two hours the vibrios, had passed through the twenty-four feet of gravel separating the pits. In other experiments, the micrococci were found to pass into the supply of a tube well drawing its supply through gravel from a distance of twelve feet from the place where cultures of the bacteria were inserted in the water near the surface.

According to the table of mortality statistics of the Marine Hospital Service, the estimated population of Baltimore is 431,054 whites and 75,344 negroes. The deaths during the month of March, 1898, numbered 593 whites and 196 negroes. The ratio of deaths to the estimated population is thus 1 to 852 for whites and 1 to 384 for negroes. The death-rate of negroes is thus twice as much as that of the whites. Similar statistics in Nashville, Tennessee, show the estimated population of that city is 54,595 whites and 33,159 negroes. The deaths during March were 64 whites and 69 negroes. The ratio of deaths to estimated population is therefore 1 to 854 for the whites and 1 to 480 for the negroes. These statistics appear strikingly significant and will furnish those who believe in the survival of the fittest with an apt exemplification of that doctrine.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE SURGERY OF THE LUNG.

The meeting of the American Medical Association at Denver seems to have been signalized by events of some unusual interest. The Association of course displayed its customary devotion to its ancient diversions. The differences of the New York medical bodies were given their annual airing, and the ghost of Benjamin Rush no doubt smiled its annual smile at the report of his monument committee. There are some tasks the Association achieves with greater success than the building of monuments to members of the profession who have been a long time dead, and it is fortunate that the Association's devotion to the vital interests of medical science has always surpassed its enthusiasm for historic memories or defunct issues.

The sensation of the meeting was found in Dr. Murphy's address on the "Surgery of the Lung." The address took a wide and comprehensive survey of Nature's method of remedying diseased states of the respiratory organs. Rest to the lung is found to be the indispensable condition to all reparative process. Such methods of surgical intervention as resection of ribs in empyema, and such natural processes as the formation of pleuritic effusions, alike find their reasonable explanation in the rest they are capable of imparting. The key-note of surgical endeavor in pulmonary operations depends on defunctionalizing the lung and maintaining it in artificial quiescence. The immobilization of the part is as important a point in Nature's process in the repair of a diseased lung as in the repair of a fracture. In 164 cases of empyema 160 cases recovered. Empyema may be considered therefore a cure for phthisis. The treatment of lung disease by compression is eminently Nature's method. This line of reasoning led Dr. Murphy's original and independent mind to conceive the idea of immobilizing the lung with nitrogen gas injected into the pleural cavity. The gas is heavy, slowly absorbed, and innocuous. He reported five cases which had been so treated.

The time is obviously unripe for any conclusions based upon such inadequate experience as Dr. Murphy records, and it would have been wiser for Dr. Murphy to have taken the public into his confidence at a later date. The ideas he has promulgated cannot, however, but stimulate renewed research based upon his theory, and the fertilizing effect of his suggestions will override any disadvantages that may follow from an uncritical acceptation of opinions arising out of inconclusive speculations or immature experience.

EDITORIAL NOTES.

Acute Hearing.

In some respects the auditory apparatus of man is very inferior to that possessed by many lower animals. The stag, which can hear the footfall of the hunter three miles away, must possess an auditory mechanism in some respects superior to man's.

Two cases of a very acute sense of hearing are reported by an English journal.

An able violinist went to fill an engagement in a strange city, and engaged apartments in a street where all the houses were built according to one plan. Returning to his rooms late one night, and having entirely forgotten the number of the house, he was at a loss to find his lodgings until a musical expedient occurred to him. He imagined he should be able to distinguish the sound of his landlady's street-door bell, and so he deliberately went along the street ringing each bell until he arrived at one the tone of which he recognized as the right one, and waited until he was admitted.

Another example of keen sound perception is furnished by a certain lieutenant on leave of absence from his regiment. He was sitting at breakfast when a band of street musicians passed by, and in one of the instruments he thought he recognized the peculiar style of playing of a man who had performed on that instrument in the band of his regiment, but who had deserted. The officer ran down stairs, found his surmise correct, and to the deserter's astonishment had him at once arrested.

The Serum Treatment of Pneumonia.

The resources of modern therapeutics seem likely to be enriched by a serum treatment of pneumonia. Professors De Renzi and Pane, of the University of Naples, have recorded in the *Gazzetta degli Ospedali* their experiences with an antipneumonic serum. They assert that the bacillus lanceolatus, or Fraenkl's bacillus, is usually found in the mouths of healthy men, and how it loses its innocuousness and becomes pathognomonic is unknown. The preventive treatment of pneumonia consists in careful disinfection of the mouth. In all, thirty-two cases have now been treated with De Renzi's serum, and twenty-nine have recovered. It is thought that an antipneumonic serum may prove of value in diseases with which Fraenkl's bacillus enters as an etiological factor —epidemic cerebro-spinal meningitis, pleurisy, pericarditis, and peritonitis.

Therapeutic Suggestions in Ordinary Sleep.

Dr. Britton, in the *Canadian Journal of Medicine and Surgery*, advances the idea that the time to teach children to forego bad habits is while they are asleep. He cites the case of his three-year-old daughter, who, after an attack of whooping-cough, was afflicted with severe incontinence of urine. He talked to her during quiet sleep, and gave manifold suggestions as to the enuresis. He was much surprised to find this line of suggestive therapeutics entirely effective. It was continued from day to day, and a complete cure resulted in a case which was peculiarly trying and aggravated.

ITEMS AND NOTES.

An epidemic of herpes zoster has broken out in Berlin.

Measles has broken out at Camp Merritt, San Francisco.

Yellow fever has broken out at Fort McHenry, Mississippi.

A decision against osteopathy has recently been rendered in the State of Utah.

By a decree recently promulgated, women physicians may enter the Russian governmental service.

Experiments have shown that fish are even more susceptible than dogs to inoculation of tuberculosis.

The average walking pace of a healthy man or woman is said to be seventy-five steps a minute.

The number of medical practitioners in Belgium according to official statistics was 3315 on June 1, 1898.

The Canadian Medical Association will hold its annual meeting this year at Quebec, beginning on August 16.

A branch of the Battle Creek Sanitarium is to be established at the Park Hotel, Prohibition Park, Staten Island, New York.

The Fifth International College of Hydrology, Climatology and Geology will be opened at Liege, France, on September 25 next.

Drs. Donald Maclean and E. T. Tappey received commissions from the Government as division surgeons with the rank of major.

At a recent examination for the qualifying diploma, held at Bengal, India, out of the forty-six students who passed, fourteen were native women.

A Mrs. Caroline Croft, who lately died in London, England, has left $100,000 for the man who discovers a cure for consumption or cancer.

Surgeon-General Ignaz Neudorfer, late of the Austrian army, and author of various works on military surgery, is dead. He was seventy-three years of age.

The French Minister of Agriculture has issued a notice, to take effect next month, that all importations into France of meats containing borax or boric acid will be prohibited.

A DINNER recently given by the Lord Mayor of London in aid of the London Hospital resulted in the collection of £75,000, and promises of annual donations of over £40,000.

WE learn from the *British Medical Journal* of April 30 that among other congresses to be held in Paris in 1900 a proposal is made for one to discuss questions of medical ethics and polity.

AFTER a very extensive experience with hypnotic therapy, the neurologist Charcot concluded that not more than one in a hundred thousand sick persons would be apt to derive benefit therefrom.

THE trustees of the American Medical Association voted $10,000 toward the fund created three years ago for the erection of a building in Chicago to be known as the home of the association.

ONE grain of the bichromate of potassium dissolved in four ounces of water, a teaspoonful every two or three hours, will be found to give relief in loss of voice, hoarseness, and in bronchial coughs.

DR. JOHN BLAIR GIBBS, acting assistant-surgeon United States Navy, is the first member of the medical profession to fall a victim in the present war. He was killed in the skirmish at Guantanamo June 11.

A LATE governmental examination of the eyes of 8125 children in twenty-five elementary schools of London is said to have shown that scarcely forty per cent. were possessed of normal vision in both eyes.

Mathews' Quarterly Journal of Rectal and Gastro-Intestinal Diseases will hereafter be known as the *Louisville Journal of Surgery and Medicine*, having been made the organ of the Louisville Surgical Society.

THE trustees of Rush Medical College have decided not to open that institution to female students because their facilities now are inadequate for the training of the large number of male students that attend.

THE latest reports to hand from Bombay testify to a steady improvement in the public health, the plague mortality having fallen fifty per cent. within a week. It is hoped that normal conditions will shortly be restored.

A CONGRESS for the study of tuberculosis will meet in Paris on July 27. The most important phases of the subject have been formulated for discussion, and it is expected that much new information will be elicited on this subject.

THE Pennsylvania Medical Society is said to have discovered that the study of physiology in the public schools as pursued at present is productive of harm rather than good. The teachers are incompetent and the books misleading.

A SEVERE epidemic of diphtheria has broken out in Hazleton, Pennsylvania. The disease has assumed such a malignant type that the Board of Health was convened in special session to devise ways and means for preventing the spread of the infection.

THE Russian branch of the Red Cross Society has granted a pension of a thousand roubles annually to M. Henri Durant, of Geneva, whose name is well known in connection with the foundation of that society, and who is in greatly reduced circumstances.

FROM the faculty of the Bellevue Medical Hospital College have resigned Drs. Austin Flint, professor of physiology, Frederick S. Dennis, professor of the principles and practise of surgery, and Samuel Alexander, professor of genito-urinary surgery.

THE members of the Erie County, N. Y., Medical Society have pledged themselves to give medical attendance free to the families of all volunteers in the Spanish-American war. One hundred and seventy-six Buffalo doctors signed a pledge to this effect.

THE London *Lancet* observes that the facilities which are afforded to medical men for continuing their education, either in the general curriculum or in special courses, are very limited in Great Britain when compared with those that exist on the Continent and in America.

THE *New York Sun* says that Dr. Henry Courtney, of Hancock Junction, Delaware County, N. Y., although 109 years old, makes daily calls on his patients, and when President McKinley called for volunteers in the Spanish-American war he offered his services as surgeon.

FORMALDEHYDE NOT A THOROUGH DISINFECTANT.—Dr. Harrington, of the Harvard Medical School, from carefully conducted experiments deduces that this gas, while a most efficient surface sterilizer, is not to be trusted for general disinfection, its penetrating power in the presence of moisture being absolutely *nil*.

PETRIFIED human remains are made to order at Crookston, Me. Pheenie Finn, a colored woman of the place, serves as the model from which plaster casts are made for fraudulent museum exhibits, and she has earned a comfortable living in this way for many years. The average price of a petrified human body made of plaster of Paris and clay and so skilfully treated as to appear to be genuine is $100.

DUKE THEODORE of Bavaria, the well known oculist, has practised for some time in the town of Biskra, in Algeria. Some of his cures soon made him very popular among the natives, and clients came to him from the far-off African deserts. Now there is talk of stopping the Prince from practise because he is not a legal practitioner. Laws that prevent any man from practising cures are founded on very small and unjust legal grounds.

BY the death of Lord Playfair a distinguished man has been removed from the world of science. During a long and busy life—he was seventy nine years of age when he died—he filled many parts and occupied many important posts apart from the actual work of his profession, namely, that of a chemist. At the beginning of his career he was a medical student, but he never proceeded far with his medical education, chemistry having proved to him too great an attraction.

THE Master in Surgery, Guy De Cehauliac, who flourished between 1300 and 1370, was the author of the first surgical treatise of importance after the Middle Ages, a work that had full sway for two centuries. He grouped together a few precepts for his own and his pupils' guidance, which might be taken as the nucleus of a code for surgeons of the present day: "In dangers cautious, be bold when sure, friendly with fellow workers, not greedy of gain, constant in duty."

FROM experiments on rabbits, Dr. T. Oliver concludes that risk of death from asphyxia after inhaling a mixture of air and acetylene is not so great as from a similar mixture of air and coal gas. The time taken to produce toxic effects is longer in the case of acetylene, and the symptoms are free from the nervous or respiratory excitement seen with other narcotic vapors. Provided asphyxia has not gone too far, recovery is rapid after exposure to fresh air. The subject is receiving further investigation.

AT CALCUTTA, where the native population lives in the greatest dread of compulsory preventive inoculation against plague, a number of wags have created wide-spread consternation by surrounding belated pedestrians, and pretending to carry out the dreaded rite, sticking pins into their victims so as to complete the illusion. A more mischievous form of practical joke could hardly be imagined, for the scare thus created might, at any moment, throw an excitable and fear-ridden population into open revolt.

DR. SVEN HEDIN, the Swedish traveler, of whose extended and remarkable travels in Central Asia there has already been published some preliminary account, has lately been to London to receive the gold medal voted to him by the Geographical Society, and the fellow of which goes to Lieutenant Peary. Dr. Hedin's full narrative of his explorations and adventures is finished as written, and the English translation of it is now being made. It will appear before long, and will be published in this country by the Harpers.

ON May 25 a New York court fined a woman $50 on the technical charge of practising medicine without a license. The way she paid the money showed that business was not languishing, even if she did inhabit the metropolis of the most enlightened country on our globe, and in this, the end of the nineteenth century. She was a witch-doctor and pretended to cure with charms and potions. She supplies her patients with charms wrapped up in a small piece of cloth, which they are ordered to wear near their hearts to keep witches away. Her fees are higher than the majority of medical men and people pay her without a murmur.

FOR some years in the city of Buffalo there has been an ordinance, secured by the endeavor of the Board of Health, prohibiting the sale of infants' nursing-bottles with long rubber tubes. Recently the health officer learned that this ordinance was being violated by the druggists, and so he instituted a thorough visitation and inspection of drug stores, with the result that a large number of warrants against druggists were sworn out. The most prominent

druggists in the city got caught in the net, and will have to walk up and pay their fines for the offense, which fine ranges from $5 to $250. It is dangerous to tamper with the health of the little suckers in Buffalo.

THE only English case, says the *Indian Lancet*, in which the active principle of aconite has been used as a poison is the case of Dr. Lawson, who poisoned his brother-in-law, Percy Malcolm John, to obtain the sum of £1500, in which he had a reversionary interest through his wife. The brother-in-law was a youth of eighteen years of age, paralyzed in his lower limbs from long-standing spinal disease. The youth died in less than four hours after taking a gelatin capsule containing some white powder which he was told was sugar. Lawson was arrested, tried, condemned, and hung. The difficulty of proving the presence of a rare vegetable alkaloid in the body after death was the reason no doubt why Lawson fixed on aconite as the poison he used.

ACCORDING to the *British Medical Journal*, a circular has been addressed to the doctors of the Berlin sick clubs, asking their opinion as to the employment of shop-girls in connection with the diseases so prevalent amongst them as to be almost typical—anemia, nervous exhaustion, and similar disorders. It appears that the answers are unanimous in condemning the long hours and especially the constant standing as extremely hurtful to young women, and that they urgently demand the following reform: (1) Maximum of work, ten hours daily, with a two hours' rest in the middle of the day; (2) a sufficiency of seats behind the counter with permission to use them; (3) proper ventilation of salesrooms, floors to be washed or mopped up with wet cloths once during the day.

TWO well known personages in Germany, Maximilian Harden, the director of the review *Zukunft*, and Dr. Schweninger, physician of Prince Bismarck, have had a singular conference at Vienna, where a numerous assemblage was gathered. After each had pronounced a short allocution, they informed the public that they were ready to respond to all questions that might be asked. On this invitation a profound silence at first reigned. No one seemed ready to ask a question. The silence threatened to be never-ending, when Dr. Schweninger turned to Harden and remarked aloud: "It seems we inspire no confidence here." Then one of the audience, encouraged, exclaimed: "What do you think of Schenck's theory?" Dr. Schweninger thought but little of it. "If you can create at your own will a *homunculus*, you could give it at your own will either a masculine or feminine sex. But you can do neither." Another one in the audience asked: "What is your opinion of Father Kneip?" to which Dr. Schweninger responded: "I have always regretted he was not a doctor, for if he had been a doctor in place of a priest I should have had the greatest faith in him." So the conversation continued until a late hour.

NEW PUBLICATIONS.

DISEASES OF THE STOMACH.

The second edition of Max Einhorn's Diseases of the Stomach has been rendered necessary by the exhaustion of the previous issue. While no radical changes appear in the text, the present edition has been adapted to accord with modern conceptions of gastric pathology. The chapters dealing with the examination of the gastric contents are exceedingly full and lucid. Dietetics are especially well considered, and the uses of all modern appliances and apparatus for the elucidation or treatment of conditions of the gastric mucosa are fully described. The work is one which will be found generally acceptable to the general practitioner, who may feel his need of keeping in touch with the great advances which have recently been made in this department of medical science.

The Diseases of the Stomach. A Text-book for Practitioners and Students. By Max Einhorn, M.D., Adjunct Professor in Clinical Medicine at the New York Post-Graduate School and Hospital. Second Edition. New York: Graham, Wood & Co.

THE TWENTIETH CENTURY PRACTICE OF MEDICINE.

The fourteenth volume of the Twentieth Century Practice of Medicine continues the description of the infectious diseases. The subject of Scarlet Fever is most ably handled by Dr. Forcheimer, of Cincinnati. Measles is discussed by Dawson Williams, of London; and Rumpf, of Hamburg, contributes an exceedingly able and comprehensive article on Asiatic Cholera. Sir Joseph Fayrer's article on Dengue will be found interesting reading, and Bruce's article on Malta Fever will be found a notable one. The present volume fully maintains the high standard of excellence achieved by previous numbers. The encyclopedic character of this series and the thoroughly modern spirit in which the contributions are written make the Twentieth Century Practice of Medicine a work both authoritative and invaluable.

The Twentieth Century Practice of Medicine. An International Encyclopedia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by Thos. L. Stedman, M.D., New York City. Volume XIV. New York: Wm. Wood & Co.

RHEUMATOID ARTHRITIS.

A vast amount of labor and research is manifested in the compilation of Dr. Bannatyne's treatise on rheumatoid arthritis. The history, pathology and course of the disease are very completely traversed from all standpoints. The author's intention in the present work has been to maintain that two forms of this disease exist, one microbic in character and the other senile and degenerative. The clinical differences between these have been admirably exemplified. The author's contribution to medicine is one of which he may be proud, and it undoubtedly possesses actual scientific value. His opinions are such as will demand confirmation or rejection at the hands of competent observers. The present is the second edition of this valuable work. It is published in a neat and attractive form and deserves to be widely read.

Rheumatoid Arthritis: Its Pathology, Morbid Anatomy, and Treatment. By Gilbert A. Bannatyne, M.D., M.R.C.P. Ed. Second Edition, Illustrated. Bristol: John Wright & Co.

DISEASES OF THE SKIN.

This little work is an interesting one, and though written from the homeopathic point of view, will be found of considerable interest to the general medical reader.

Diseases of the Skin, Their Constitutional Nature and Cure. By J. Comton Burnett, M.D. Third Edition. Philadelphia: Boericke & Tafel.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Gunshot Injuries in the Late Greco-Turkish War.

Henry J. Davis, M.A., M.B., who served as a surgeon in the late war between Greece and Turkey, contributes a very interesting article in the May number of *Gaillard's Medical Journal*, in which he says: "It is almost true to say that all bullet wounds, except those limited to the soft structures, result in fracture of bones. If there is any breach of surface, it is of necessity a compound fracture, and is the most unfavorable form of any kind of bone injury, for (1) the wound is an infected one; (2) it is devoid of drainage, owing to the long sinus left by the track of the bullet; and (3) the hygienic surroundings are invariably bad. When a joint is opened by a bullet it communicates with the exterior, and being exposed to all the ordinary infective sources, it suppurates. A fractured olecranon, a fractured patella, and an impacted Colles' fracture are fractures into the joint, but suppuration does not occur unless contamination is admitted to the seat of injury.

"If I were asked what were the points that struck me most in injuries of this kind (for with the exception of a few revolver and gunshot wounds which I had seen in hospitals my knowledge on the subject was very limited), I should say that I was at first surprised at the comparatively little damage done by rifle bullets. In some cases, it is true, it was enormous, but in the majority of wounded men the ball had passed straight through the part struck, leaving a tiny, bluish-black hole at each end, resembling to my mind a magnified leech-bite wound of about three days' standing. In most of the cases it was impossible to tell by the appearance of the wounds which was the hole of entry and which was that of exit; the patient himself could rarely say, and it was only by ascertaining his position when struck that this could be determined. Some of the edges of the entry were inverted, but not all; some, especially the oblique wounds, were round and gaping. The wounds of exit in many cases seemed the same as those of entry; a few, however, had everted edges. Superficially the wound is nearly always smaller than the bullet producing it. This has been accounted for by the great twist there is on the ball at the time, like the screw on the turning point of a gimlet. But is that really so? I should say that a bullet traversing the whole body would not revolve on its long axis more than, at the most, half a turn, unless it is arrested in the tissues, when theoretically it would spin like a top; hence the area of the internal wound often bears no proportion to that of the external wound. If an express bullet be fired into a thick board it will hardly be possible to pass even a wire down the track of the ball. I asked nearly every wounded man I saw in the war, however slight the wound, excepting perhaps grazes and hand wounds, whether he was knocked over when struck. This seemed to be invariably the case. When hit, he experiences the sensation of a sudden, heavy blow. If wounded in the head, trunk, or lower limbs, he does

not fall forward as one sees on the stage, but collapses and sinks to the ground, turns pale, sweats, and often vomits. All this may be due to the mental shock, or the consciousness that he has at last succumbed. The ball rips through the tissues, carrying in pieces of cloth or other foreign bodies, which are left in the bullet track, leading to suppuration and the formation of a troublesome sinus, and requiring the continual 'tinkering' which is characteristic of these wounds."

MEDICINE.

Mycosis Pharyngis Leptothricia.

Dr. Max Toeplitz, in the *New York Medical Journal* of June 25, in an article on mycosis, says benign mycotic affections of the oral and pharyngeal cavities have been well studied under the microscope. They are classified as follows: Thrush, caused by *Oidium albicans*, nigrities linguæ (black tongue), mycosis sarcinica and aspergillina, and mycosis due to yeast and leptothrix.

In nigrities linguæ the tongue is covered with black deposits, which are cast off as readily as they reform. Dessois believes it to be caused by glossophyton. Sell and Dahl could not place the parasite among any class. Klebs calls it *Penicillium microscoporium*. Schmiegelow's black fungi are hyphomycetes, not identical with those of Ciaglinsky and Hewelke, consisting of *Mucor niger*, and of Sendziak, resembling aspergilli.

Mycosis sarcinica was first described in 1846 by Virchow, and later by Nauwerk and Fischer. Mycosis aspergillina, comparatively frequent in the external auditory meatus, is exceedingly rare in the throat. Schubert has given an interesting account of its occurrence in the nasopharynx. Siebenmann found there *Aspergillus fumigatus* and *nidulans*, and *Mucor corymbifer*. John N. Mackenzie and Zarniko found aspergillus in the antrum of Highmore.

Mycosis of the tongue produced by yeast has been observed in a new-born girl by Parak, later by Troisier and Acharme after typhoid fever, and lately by J. Herzfeld, in one case after influenza-pneumonia, and in another in a girl aged twenty years.

Mycosis leptothricia presents two forms — a diffuse and a circumscribed form. In the diffuse formation, which was at first exactly described by von Ubisch, the tongue is found to be uniformly coated with a continuous, milky, glistening mass, which completely covers the filiform and fungiform papillæ. The base and lower surface of the tongue thereby appear almost entirely level. The general condition of von Ubisch's patient was satisfactory and the functions of the digestive apparatus, particularly the sensation of taste, were well preserved. The deposits had been formed by masses of the leptothrix fungus.

The second, circumscribed, form was first described in 1873 by B. Fränkel under the name of mycosis pharyngis leptothricia benigna.

In regard to the treatment, the writer says many remedies have been recommended for mycosis leptothricia. A five-per-cent. solution of aluminum aceticotartaricum and other chemicals has been used without success. *Folia*

nicotiana, corrosive sublimate 1:2000, and according to Dunn a saturated solution of permanganate of potassium, have led to recovery. Many cases heal spontaneously. In his own cases the author says that the sharp spoon and the galvano-cautery cured the patients.

The Value of Quinine in Malaria.

Dr. Van Marter, Jr., in the May number of the *Texas Courier Record of Medicine*, concludes his paper on this subject as follows: (1) As a preventive quinine will not do for those who are compelled to live indefinitely in a severe malarial climate, since in time it acts as a vasomotor poison. (2) Quinine acts nearly as a specific on all malarial fevers characterized by intermission or well-marked remissions, but fails in the continued fevers—those of typhoid-like symptoms, those malarias without temperature, and the cachexias and anemias due to malaria. (3) It is thus proved that quinine is a poison to the plasmodium itself, but is useless against the toxin manufactured by it. (4) Warburg's tincture in the last condition has an action not yet understood on the toxin (or the eliminative system), by which the system is put in condition to benefit by quinine. (5) Quinine should never be used in hemoglobinuria or given subsequently to one who has suffered from it, as it is liable to bring about a recurrence of the condition. Only those living in regions of severe malarial diseases can become competent to settle these questions *pro* or *con*.

THERAPEUTICS.

Therapeutics of Carbuncles.

Dr. S. Rosenbaum, in the *New York Medical Journal* of June 11, in an article on carbuncles, gives the following method of treatment as pursued by himself:

Fold a piece of aseptic gauze until it forms a thickness of six or eight layers, the surface area to be somewhat larger than the carbuncle to be covered. The gauze is first thoroughly saturated with Thiersch's solution, then covered with a layer of ten-per-cent. ointment of ichthyol, and then applied to the carbuncle. A piece of rubber protective, large enough to overlap the gauze, is now placed on the same to keep in the moisture. A layer of cotton is placed on the protective, and then the bandage is applied and allowed to stay two days. When the patient returns to have the bandages changed, the cores are found to have separated from their respective walls, and at the next redressing, which is in a few days, they are found entirely separated, and can be easily and painlessly removed. At the next visit granulation has passed the primary stage, and healing quickly results, leaving an almost invisible scar. The only constitutional treatment necessary is the administration of cathartics, and in individual anemic or cachectic cases compound syrup of hypophosphites.

The writer claims for this method the following advantages: (1) Painlessness; (2) quickness of healing, more so than with other methods; (3) no scar or cicatrix remaining—important when carbuncles are in visible parts.

Immobilization in Pulmonary Tuberculosis.

This has been tried by Bloch, of Paris, who reports that a demi-cuirass of plaster on the diseased side stopped the cough, pain and vomiting and reduced the fever in a number of cases. Auscultation after the removal of the cast in two or three weeks showed that the crepitation and râles had remarkably diminished.

Antistreptococcus Serum in Asthma.

Two cases are reported in the *Presse Médicale* of May 4, 1898, of complete cure of asthma accompanying streptococcus rhinitis with injections of anti-streptococcus serum. This experience confirms Landonzi's assertions that asthma is caused by a toxin, usually tuberculous.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,

Microscopist to Harper Hospital, Detroit.

A Peculiar Culture Medium.

Drs. Pacinotti and Municchi, in the *Gazzetta degli Ospedali e delle Cliniche* of March 13, 1898, take up the researches of Polli and Ruspini in 1885 upon the changes in culture media, especially egg albumen with unroasted coffee, which after twenty-four hours takes on an emerald-green color. The authors find that such egg albumen is not only a good medium, but has a diagnostic value owing to changes in color due to certain bacteria. To prepare the medium take 100 grammes of fresh egg albumen, mix with 20 grammes of unroasted coffee, and allow to stand two to three days, when it will have a green color. Then filter through sterilized gauze and fill the test tubes. Sterilize several days for two hours at 60° to 65° C., and allow to harden at 70° C.

Upon such egg albumen the cultivated bacteria themselves are not colored, but round about the colonies the albumen is either decolorized or changed in color. Colonies of both meningococci and pneumococci are surrounded by an orange yellow zone which continues so long as the bacteria live.

Staphylococcus pyogenes aureus is surrounded by a light yellow space and liquefies the albumen to a slight extent. Proteus vulgaris liquefies the medium still more and has a reddish zone. There seems to be a possibility through these changes to differentiate macroscopically several of the various classes of microbes.

The color of albumen cannot be due to chlorophyll, as it is not soluble in water and only slightly in alcohol, ether, benzine, and petroleum. Coffee-beans color these substances a dirty yellowish-brown, not the emerald green as with albumen. Gallerani submitted the albumen to a spectroscopic examination, which showed it to be different from chlorophyll, but seemed to him rather a xanthophyll. As we do not know the nature of the coloring matter, it is impossible to explain these changes in color. It is certainly not due to

acids, as there was no acid reaction, and mineral acids color the albumen more or less reddish, but do not decolorize. Carbon dioxide produced no changes; oxygen made the green color darker. If the cultures are placed in a water-bath at 100° C., or a 1:1000 bichloride solution is poured over them so as to kill the bacteria, the colored places again take on their former green color.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,

Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

The Relation of the Ureteral Catheter to the Surgery of the Kidneys in Women.

Reynolds (*Boston Medical and Surgical Journal*, March 17, 1898) has catheterized the ureters seventeen times during the past three years, and concludes from his experience that this method furnishes a means of physical examination of great importance. By this procedure the condition of each kidney may be determined with certainty, the diseased organ ascertained, and the disease isolated. In this class of cases the following points are of especial interest: (1) The symptoms may be transposed—that is, the pain and tenderness may be referred by the patient to the comparatively sound kidney. (2) There may be a transitory inflammatory affection of the sound kidney which should lead us to defer operation until it has passed away. (3) The choice between nephrotomy and nephrectomy, and sometimes the decision as to whether any operation is or is not permissible, should be decided by a comparison of the relative condition of the two kidneys. (4) In cases of renal calculus, the question between nephrolithotomy and nephrectomy must depend largely upon whether the condition of the affected kidney affords a prospect of good healing and a useful kidney after nephrotomy.

That the usefulness of the ureteral catheter is questioned by some of the ablest observers in gynecological practise is voiced by McMurtry in the discussion of Howard Kelly's paper on "Sources and Diagnosis of Pyuria," read before the Southern Surgical and Gynecological Association (*Buffalo Medical Journal*, March, 1898). McMurtry said in substance:

"As a diagnostic resource the method described has certain definite value, but in my judgment its scope in practical therapy is almost *nil*. In the differential diagnosis between unilateral and bilateral disease of the kidney, in eliminating vesical involvement in cases of pyonephrosis and in some other conditions, this method of exploration has a useful purpose and should be cultivated. It is altogether for diagnosis. I know no advantage it can offer in the treatment of renal disease.

"It is the custom of surgeons to make an investigation of the urine of women as a routine part of examination preparatory to operation. In a very large proportion of the cases presenting for operation, pus will be found in the urine. This observation should not mislead the surgeon, since pyuria may be due to leucorrhea, gonorrhea, or purely transient causes, disappearing when the operation has been performed. Unless there be quite a large quantity of

pus, and in a specimen carefully drawn with the catheter, it is unnecessary to spend time and energy in search of a remote cause, when the most probable source of pus is apparent.

"Moreover, exploration of the ureters is not under such conditions devoid of danger. Just as the area of gonorrheal infection may be extended from the vagina through the cervical canal and beyond by injudicious instrumentation, so may a vesical infection be carried along the ureteral mucous membrane to the pelvis of the kidney. Such indiscriminate and routine exploration of the upper genital tract in cases of pyuria as the essayist suggests is by no means a harmless procedure; it may convey an infection along clean surfaces to the kidney. And again, ureteral catheterization can avail nothing as a method of treatment. The constant secretion and passage of urine is as efficient for drainage here as any artificial washing can supply.

"Dr. Kelly has cited a case of appendicular abscess opening into and discharging through the bladder as an instance illustrative of the value of this method in diagnosis and treatment. Surely such extensive disease would furnish in its clinical history and general physical signs sufficient indications for diagnosis and treatment without searching through such a devious route. In another case the common clinical observation of suppurative salpingitis discharging into the bladder is mentioned in illustration. Such cases are not uncommon, and I am unable to appreciate the necessity or value of vesical exploration, either for diagnosis or as an adjuvant to successful treatment of that form of pelvic abscess. Certainly one would be at a great disadvantage to exchange the established method of examination by touch for vesical exploration in such conditions, and I am again unable to appreciate how such exploration could materially add to the diagnostic signs of pelvic abscess with pyuria so readily detected by the ordinary methods now in vogue."

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT,
Attending Neurologist to Harper Hospital.

Experimental Tabes.

At the recent German Medical Congress (*Medical News*, May 14, 1898) Edinger read a paper on "Degenerations of the Posterior Columns," which had been experimentally produced in rats previously made anemic and then compelled to overwork for forty-eight hours in a treadmill run by water-power. They were then killed and the cords stained and examined.

Degenerations of the posterior columns were found, and from the results of the experiments Edinger thinks the etiology of tabes is made clear, believing it to be a degeneration of the sensory nerve fibers from overexertion, when their ordinary powers of resistance have been lowered, whether by anemia, or toxic condition, or syphilis.

He considers this as very important in its bearings on prophylaxis, believing that syphilitics, those anemic or run down, should be carefully advised against the great danger of excessive exertion, exposure, etc.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

Ophthalmia Neonatorum.

Stephenson (*Medical Press and Circular*, June 8, 1898) says that the generic name ophthalmia neonatorum includes several distinct disorders of varying severity. In the foremost rank stands that form of conjunctivitis associated with Neisser's gonococcus. This ailment is usually characterized by marked signs. So great is its tendency to set up corneal mischief that, of those affected, probably one in ten lose one or both eyes. It therefore always calls for the prompt application of suitable remedies. We may, in general, give a good prognosis when (*a*) the case comes under care before the cornea is affected; (*b*) the baby is well nourished and free from inherited disease; and (*c*) there are no local conditions that militate against recovery, as congenital smallness of the eyelids. Two-thirds of the hospital cases belong to this group, but in private practise the proportion is probably less.

Then we have milder forms of inflammation, caused sometimes by Weeks' bacilli, sometimes by pneumococci, and sometimes by diplo-bacilli. For the most part, these are harmless enough, and owe their importance to their liability to be confused with gonorrheal cases.

To make a correct diagnosis is to take the first step towards a scientific and successful treatment. In order to differentiate with certainty between these various forms of inflammation a bacteriological examination of the eye-discharges is almost imperative. But the methods of investigation are simple, and such as can be carried out by any surgeon without great expenditure of time. In most cases it is enough to stain films from the pus; cultivation tests are called for only now and then.

The milder forms of disease may be cured by the frequent use of any of the ordinary antiseptic lotions. The more severe ones need, in addition, the application, once or even twice in the twenty-four hours, of a two-per-cent. solution of silver nitrate. Corneal complications are to be met by atropine or physostigmine with cocaine, or, if that fails, by the local application of carbolic acid or the galvano-cautery. Any constitutional ailment, as syphilis, must be attended to. If the baby cannot be nursed, the practitioner will be well repaid if he goes carefully into the somewhat wide and complex question of artificial substitutes for human milk. Lastly, the contagious nature of ophthalmia should be always explained to those who are placed in charge of an infant suffering from the ailment.

Mastoid Disease.

In the *Philadelphia Polyclinic* of June 11 Dr. Charlotte C. West reports the interesting case, recently seen in the clinic of Dr. Seiss, of a boy aged twelve years suffering from marked mastoiditis. The auricle was standing at right angles to the head, the mastoid region was tumefied, red, and exquisitely tender to pressure.

The case received the following attention: The canal was carefully cleared of cholesteatomatous débris, with a 1:100 carbolized solution, and moist carbolized dressing was applied to the mastoid and auricle. The nasopharynx was treated with sedative sprays. Two days later it showed great improvement, and after five days the auricle was normal in position, the blush nearly gone, and the discharge from the ear nearly cured. Dr. Seiss spoke of the importance of thorough drainage through the external auditory canal, and the avoidance of too early operation was strongly emphasized.

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
Lecturer on Dermatology, Detroit College of Medicine.

Urticaria with Recurrent Hematemesis.

Dr. T. H. Chittenden, in the *British Journal of Dermatology*, gives the history of a case of this interesting disease in a woman aged thirty-three. The patient had various attacks of urticaria, the first of which appeared in April last. The ordinary wheals of this disease appeared over the body generally, especially on the back, thighs, back of hands and face, usually coming out at night and subsiding towards morning. These continued until June and the symptoms increased in severity, the tongue and lips becoming very swollen. There was sore throat with marked dysphagia. These attacks usually lasted about a week, and after a few days there was a cessation of the severer symptoms. They recurred early in August, when she was seized one morning with great nausea, and vomited large quantities of blood and coffee-ground fluid. She felt better immediately. The urticaria totally disappeared in a day or two, and she was entirely free until early in October, thus enjoying a respite of six weeks. It then returned with all its former severity and ran a similar course until the middle of November, when she suffered from distressing nausea, vomiting still larger amounts of bloody fluid with a great sense of relief and the speedy disappearance of the rash.

Concluding his article the author says: "In this, as in the few other recorded cases of recurrent urticaria, the extreme difficulty of entirely excluding the possibility of gastric ulcer somewhat obscures their pathology, as in all of them there has been a certain amount of dyspepsia." We may conclude that the hematemesis was the result of hemorrhage from the stomach, due to capillary rupture occurring when the mucous membrane of that organ was in a state analogous to the urticarial conditions of the skin. That it is due to some toxin circulating in the blood there can be no doubt, but the nature or origin of that toxin is not known. That it must be autogenetic, and not taken in from without, seems most probable, for it appears to make no difference when the strictest rules of diet are rigidly adhered to.

THE MEDICAL AGE

VOL. XVI. DETROIT, JULY 25, 1898. No. 14.

ORIGINAL CONTRIBUTIONS.

FRACTURES OF THE SKULL.*

BY J. GARLAND SHERRILL, A.M., M D.,

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Fractures of the skull are divided into those of the vault and those of the base. Frequently a fracture extends from the vault to the base, and such an injury proves additionally serious from its extent.

The mere fissure or solution of continuity of the bones of the calvaria does not of itself prove serious; but the damage done to the brain substance and to the intracranial vessels by the force which produces the fracture, and the injury of these structures by fragments of bone, determine the gravity of a given case. In fact, in a case recently reported to me by the attending surgeon, the patient died from rupture of the middle meningeal artery as the result of a blow, without the presence of any break in the bone.

A fracture complicated, then, by injury of the contents of the calvaria is a very serious affair, and the additional complication by a communication with the surface and the probability of septic meningitis adds much to the gravity. A fracture might be possible without either of these more serious complications, but it is of such rarity that it is safe to say that a fracture of the skull is always complicated.

Fractures involving the base differ from those of the vault in that the force necessary to their production is greater, and also in the proximity of the most vital structures. The prognosis in these injuries is therefore even more grave than in those of the vault.

No injury about the head is so insignificant as to be ignored, and none so severe that there is not a chance for the patient's life. I have personally seen extensive fractures and even those from gunshot wounds which were not fatal; again, I have known patients to succumb to an apparently very trifling injury in this region.

Symptoms. — Symptoms indicative of a fracture of the skull are very frequently delayed for some time after the occurrence of the injury. I recall two cases terminating fatally in which symptoms of serious injury of the brain

* Read before the Falls City Medical Society, Louisville, Kentucky.

were not present for over twelve hours. In each of these cases the fracture extended from the vault to the base, and in one almost entirely across the base of the skull.

The symptoms following injury to the skull have been classified as those of concussion and those of compression of the brain, and the lines of distinction have, by most writers, been very clearly drawn. I believe that in the majority of these injuries we will find symptoms present which are the result of laceration of the brain, and also in certain cases symptoms indicative of pressure upon the brain itself, either from bone or from hemorrhage. Some time must of necessity elapse before the compression from hemorrhage occurs, but when a fragment of bone presses upon an important center, the symptoms come on at once; and in marked cases these symptoms are unmistakable—complete unconsciousness, slow stertorous respiration, full slow pulse, skin usually warm and perhaps moist, pupils respond feebly or not at all to light, temperature slightly subnormal; the condition of the pupils varies according to the site of pressure, often both contracted, or one may be dilated and the other contracted; power of motion is lost, retained urine overflows, and fecal incontinence prevails. Cases with marked symptoms are urgent, and the diagnosis is certain.

The delay necessary for the development of these symptoms resulting from hemorrhage lessens the chances of benefit from operative measures owing to the frequency with which the brain fails to expand after exposure to this amount of compression. Therefore it is imperative that the earliest symptoms of brain injuries be studied. Laceration of the cerebral tissue, no matter how slight, produces the symptoms of syncope and shock, and these symptoms increase proportionately with the amount of damage done, from a slight dizziness to more or less complete loss of consciousness, with pallor of the face, cold, damp surface, nausea, and perhaps vomiting. This latter symptom, formerly looked upon as favorable—indicative of returning consciousness—while probably true sometimes, has more frequently no significance with reference to the amount of damage present. The pulse in these cases may be rapid or slow, but is usually feeble and compressible. According to Gross hemorrhage from the nose is not infrequent, and even bleeding from the ears may occur without fracture. This latter symptom only means that the blow was severe enough to rupture the drum membranes, and this of course would be more likely to occur when the petrous portion was broken. The respirations are usually shallow, intermittent, sighing, but may be noisy or labored. Temperature is markedly lowered.

These symptoms are very variable and often merge into those first described. The symptoms are by no means constant or indicative of the character of the injury present, and are for the most part probably produced by the effect of the injury upon the sympathetic system.

With such a train of symptoms presenting, what is best to be done for the patient? No steps should be taken without the greatest care and painstaking to observe aseptic rules. It is perhaps better to allow the patient to go unaided than to add a septic infection to his already grave condition. Before arriving at any conclusion the scalp should be shaved and carefully examined;

valuable information can thus be elicited. Whenever there is the slightest suspicion of a fracture, an exploratory incision through the scalp should be made. The value of information thus elicited by far outweighs the danger of such incision, which, with proper precaution, is trifling. Whenever a fracture is discovered the calvaria should be opened and its contents examined. The danger of epilepsy and other nervous disorders is so great, to say nothing of the immediate danger to life, from failure to lift a fragment of bone or to remove a clot, that a surgeon is to be censured who fails to follow this plan of investigation and treatment.

The patient presented fully exemplifies the value of this advice, as is shown by the following history:

Mr. R. B——, white, laborer, aged thirty-two years, was struck a severe blow on the right side of the head above the ear about 3.30 P.M. April 6, 1898. The patient was given a hypodermic injection of digitalin by his physician before admission into the hospital. About three-quarters of an hour later, upon admission into the ward, he was partially conscious, replying indifferently well to questions; never unconscious. Pulse was compressible, but only 40 to the minute; respiration 14 and shallow; no stertor whatever; surface pale and cold, with slight perspiration; no evidence of paralysis. When I first saw the patient pupils were both contracted; later the right was dilated and the left contracted; both responded feebly to light. There was slight hemorrhage from both ears, most from the right.

After shaving the scalp, a contusion of the tissues above the right ear and a hematoma could be detected. On deep pressure the patient flinched. No fracture could be made out. The scalp was lifted to clear up the diagnosis, and the following condition presented: A depressed fracture two inches in width by three and one-quarter inches in length was found involving the lower part of the right parietal and upper part of the squamous portion of the temporal bone. On removing this a large extra-dural clot was discovered, evidently due to rupture of the posterior branch of the middle meningeal artery.

At six o'clock in the evening, about two hours after the operation (April 6), the patient's pulse was 74, respiration 24, temperature 97.4° F.; at seven o'clock the temperature was 98.6° F., reaching 100.2° F. later in the evening.

At six o'clock P.M. April 7 temperature was 99.8° F., respiration 22, pulse 60. Little change until April 10, when temperature was 101.6° F., respiration 32, pulse 78.

April 11, 2.30 P.M., temperature was 101.4° F., respiration 54, pulse 106, reaching 120 shortly afterwards.

On each of these occasions the wound was dressed, and immediately after the dressing the respirations came down. Up to that time there had been no suppuration, but there was a large blood-clot between the scalp and the dura which caused some pressure, and the absorption of serum probably gave rise to the elevation of temperature and acceleration of pulse. Two days later slight infection occurred; the wound was partially opened and thoroughly irrigated, and after this washing (April 13) the man had no trouble whatever. There has been some little discharge from the wound since, but the brain seems to be free from infection.

While the patient was present, you observed that the wound had almost entirely healed. The man's intellection is perfect; there has not been at any time the slightest evidence of paralysis; and if we can judge from his present appearance, ultimate recovery is assured. I made a very large horseshoe incision, extending from a point just behind the ear to within one inch of outer angle of the orbit.

The mortality following trephining (according to Wagner and Seydel) is so slight (1.23 per cent.) compared with the cases expectantly treated (33.33 per cent.), that in my opinion operative interference is positively demanded in all cases of fracture of the skull within reach of the investigation of the surgeon.

AN EXTRAORDINARY SURGICAL EXPERIENCE.

BY J. W. HURT, M.D., ATLANTA, GA.

On May 7, 1898, I was called to Police Barracks to see a negro woman forty-three years old. When I arrived I found her with one-half of the upper lip gone on left side. She said she had had a fight with her husband two hours and a half before, during which he had bitten off her lip, and that the police had arrested them. I washed the wound and then began to look about for some convenient place to get a piece of skin to transplant. Every place I suggested she would object, saying she was a washerwoman and had to work for a living. I told her I must have some skin from somewhere, so she suggested I send to her house, about half a mile away, and get her lip. Acting on her suggestion, I sent a call man for it. The daughter looked about the room where the fight occurred, found the lip where the husband had spit it out on the floor, wrapped it up in an old dirty cloth, and in a little while the call man was back. I took the lip, washed, scraped and cut the dirt off, fitted it to the raw surface, and sewed it back with thirteen stitches. I put on some antiseptic powder and covered it with several layers of isinglass plaster, and making her as comfortable as possible, sent her home with instructions to call at my office in the morning, this being 10 P.M. She claims to have called twice, but failing to find me, she returned home and began to attend to the lip herself. I lost sight of her, and thinking by her not calling she had got some one else to attend her, in about three weeks I decided to look her up, and to my surprise I found the wound had entirely healed with perfect union on all sides. She washed the wound with carbolic acid water and took out the stitches herself, and when I last saw her there was only a very slight scar in the middle of the lip with a very slight tenderness on pressure. The lip is not drawn or disfigured in the slightest; the expression is the same on the left as on the right side, and she says she suffers no inconvenience from it, and that she feels as well as ever she did. When the lip came it was blue and cold, without any apparent signs of life, having been off two hours and a half, but as I stated before, it grew back nicely, with only a very small scar that is scarcely noticeable.

"THEN AND NOW."*

BY FREDERICK W. ROBBINS, A.M., M.D., DETROIT, MICH.

To one drifting down the stream of time with myriads of fellow beings moving in the same direction, each with his own abilities, hopes, successes, and failures, one day seems much like the day previous, and one year like the preceding; and to the oft repeated question "What's new?" comes the ready answer "Nothing new," or "Everything is much as usual." It may be neither uninteresting nor unprofitable to discuss for a few moments the truthfulness of those phrases and consider one or two points suggested by the answers in question.

Even the most stupid or most thoughtless, if he were to contrast the world and its social fabric of two thousand years ago with that of the present, would have no difficulty in seeing the vast changes that have occurred since then. Let him turn to the geography of the known world and see in it no western hemisphere and the eastern only a fraction of its present extent; and in this the only civilization worthy of the name, limited to a little belt in Western Asia and Egypt, with a narrow strip in Southern Europe. Out of this civilization developed that condition of things whereby the world could look with complacency and almost adoration upon a ruler like Nero, whose atrocities, if undertaken by any ruler upon earth to-day, would bring speedy destruction to himself and his kingdom. Then the world was slave to a few. Then the superstitious bowed in worship of many gods. There had not been born that Man of men whose influence has so leavened the entire world that honor is at least as effective as power, and honesty as genius. Two thousand years is a long time, and no one of us can conceive what it means in terms of progress; but I desire to take you back fifty years in order that we may better appreciate the rapidity of the current down which we are moving. When I think that some of those students with me in the Detroit Medical College have been engaged in the practise of medicine one-third of that time, when I remind you that three of the physicians whose names are in the last city directory were active in the practise of medicine then, and one of those same physicians can be seen any day, rain or shine, in his carriage, going from sick-bed to sick-bed, I think to myself that it is reasonable to look back over this period which we can all appreciate, consider some of the changes in our immediate surroundings in population, science, and art, and then say, if we can, that the world stands still, and if not, what of the future?

Fifty years ago there were in Detroit, even then one of the principal cities of the United States, about eighteen thousand people. On the east side the city limits had just been extended to Rivard Street; Woodward Avenue, Detroit, ended where the Central Methodist Church now stands; and to the west the city reached way out to Third Street. Were there any pavements in Detroit then? Yes, one of plank on Jefferson Avenue, in the middle of the street, from Woodward Avenue eastward for a few blocks. Railroads were in their infancy, and Detroit was proud of the two which entered the city. The

* An address to the Graduating Class of the Detroit College of Medicine.

first, between Detroit and Pontiac, left its station on the Detroit Opera House site and ran out Gratiot road, but a little later down Dequindre Street to its new depot on Jefferson Avenue, without the city limits. The rails were strips of iron, laid on sleepers, and it was no unusual thing for the rail to become loose, bend up, and go through the car—not a pleasant experience for the passengers surely; but this danger was not to last long, for in a newspaper advertisement about this time it is noted that the cars on the Detroit & Pontiac Railroad had been sheathed with iron to prevent such mishaps. The Michigan Central, little like the great system of which it is now a part, started from the depot, where the City Hall now stands, and ran out Michigan Avenue as far as Kalamazoo or Marshall. Eastward it was necessary to go by stage or water to Buffalo, from which place a railway was in operation to Albany. Scarcely a building of any proportions exists to-day that was the scene of activity then; not a church standing to-day reaches back in its history to that date—even the Mariners' Church on Woodward Avenue south of Jefferson Avenue, and the Baptist Meeting House, which now, on the corner of Griswold and Fort Streets, serves as a cigar store and old office building, had not then been built. The buildings pointed out with pride by the residents of that time have given place to other and grander structures, and many of the sites have been built upon several times.

How was the city lighted fifty years ago? It was not lighted at all save by Nature's lamps—the moon, stars, and fireflies—or the glimmer of candle or sperm-oil lamp through shop and house windows. Kerosene had not been separated from the products of the earth, gas was unknown, and man had not dreamed of harnessing the thunderbolt for family use. It was not necessary, to prevent business paralysis, that street cars should transport the public from place to place—but note the later developments.

Thirty years ago the first street cars, one-horse affairs, invaded our streets; no conductors; cold, except as hay on the floor might keep the feet warm. These, in good weather, would take a lame man to his business faster than he could walk. Fifteen years later, since my residence in the city, the larger two-horse cars drove out the bobtails; a little later the patrons of street cars were treated to stoves in the coldest weather; and now we have an electric service which double discounts anything given by steam power four decades ago.

Enough has been said concerning the physical progress in our vicinity to answer my purpose. As its corollary comes the idea of great scientific attainments. Such remarkable growth could not have taken place had not inventors created a demand for the luxuries and necessities which we now enjoy. The beautiful stoves, furnaces and heaters built in Detroit had not been invented at the time of which we are speaking. The application of the results of men's minds to railroading in thousands of ways was still waiting the inventive spark. The necessity for and ability to produce good sewerage systems was then little more than a dream. Necessity has been followed by inventions too numerous to mention. Necessity is many times the mother of invention, but the inventor who would reach the golden goal by producing demands as well as inventions has done much more to advance civilization.

No one pretends to know much about the business of others in the many

lines of scientific achievement—experts there are, and to them the public willingly concedes the knowledge. How is it in medical matters? Is it possible that while great strides are being made in other branches of science, the science and art of medicine has stood still? Just because there is much of superstition throughout the world and even our own intelligent State, let no one for a moment believe that the medical profession is not holding her own.

One might think otherwise at times, when we see citizens, of fair understanding in many respects, blinding themselves to reason, and following any superstition that presents itself to their unstable intellects; but superstition has been born and bred into the life of the people from the earliest days. In the struggle to release ourselves from the shell of the barbarian we took that legacy with us. All through church history its cloud has wrapped us about, and even yet scientific truth has this child of darkness to contend with. Poets, litterateurs and many theologians are, to-day even, biased by it. Many of our very selves cannot be said to be superstition proof. In the early part of this century, when Perkinism held sway, even the crowned heads of Europe were deluded by this piece of quackery as thoroughly as are the many believers in the electropoise, christian science and other delusions of the present day.

Is it fair, while we see the great advance in all other sciences, to shut our eyes to what has been accomplished in our favorite field? Is it fair to compare our position of fifty years ago with the learning and achievements in other branches of to-day? Do you realize that at that time the public knew nothing of the relief from pain resulting from the discovery of anesthesia? When an amputation was to be done the patient had to suffer agony, except in so far as he could be stupefied with alcohol and opium. After the operation, which was done in a private house, since there were no hospitals in Detroit then, the sufferer, if he recovered at all, did so only after a long period of convalescence, during which time the nurse must several times a day dress the suppurating wounds and remove foul-smelling dressings. Now, in many cases, such a patient sits up and is practically well after a week's time, while the room in which he lives is as sweet as a parlor.

No abdominal operations were attempted fifty years ago, and the accidental opening of this cavity was of the gravest import. Now, every week, in our large hospitals, these operations are done by the dozen, and in the great majority of cases the only after report is "uneventful recovery." The very term appendicitis, now so familiar, was then unknown, and to prevent by operation the excruciating pain and frequent deaths due to gall-stones was impossible.

In dentistry, the barbarous turnkey for the extraction of teeth is, by most of you, not known even by sight. In modern surgery of the extremities, the attempt is always made to save as much of the limb as possible, and we are often astonished to see what useful arms, fingers and feet result after injuries which would have necessitated amputation had not Lister and his followers shown to the world that it is possible to prevent "inflammation setting in," by setting our traps to prevent microbes getting in. Those in college with me will remember the ardent advocacy of Listerian principles by our professors of

surgery, when, in neighboring institutions, they were sneered at whenever opportunity arose. But principles based on scientific foundations can afford to be attacked, for truth must prevail. To-day asepticism is the key to all successful surgery, and to give attention to it is of greater moment than to know the origin and insertion of muscles or the course of many nerves and blood-vessels.

Through regard for this principle, typhoid fever scarcely ever has its origin in Detroit, and cholera, which carried off many of our citizens in 1849 and previous epidemics, is now a disease under control, and should it enter our city to-morrow no physician would have any fear, personally speaking. While the name of Lister stirs the blood in the breast of medical men, it must be remembered that many thousands of students in the regular medical profession are working in the laboratory and at the bedside to establish great fundamental principles and methods by which they may be put in practise. There may be only one Lister during half a century, but even Listerism only contains the great fundamental idea, and it was for the army of careful workers to tear from it the excrescences and give to us the asepsis of the present day. In medicine and surgery we have found our advancement in the ranks of scientific medicine. As we have worked out of the darkness toward the light, it has, let it be confessed, occasionally fallen to the lot of an unscientific sectarian or layman to emphasize some defect, but they have never constructed anything. Fundamental principles of truth are the only basis for a scientific superstructure, and when I see sectarians in medicine attempting to build a scientific scheme on an unthinkable hypothesis, I say to myself, "Turn on the light of education." What is the result? The "ism" or "pathy" becomes a thing of the past.

We have attempted in a few words to picture some of the recent advances in physical, scientific and surgical matters. It is not more difficult to notice similar changes in matters strictly medical. Many of our most valuable remedies have been known for years, but the pharmaceutical chemist has improved very materially upon the method of their administration. The large cupful of bitter infusion which often the sensitive stomach could not retain, and the child rarely be made to take, no doubt led many to adopt the homeopathic mode of treatment. Not only was such crude stuff unpleasant to administer, but it was uncertain in its action. Now, in many cases, separation of the active principles of drugs makes it possible to produce the same result with minute doses as formerly with the cupful of miserable tea. Again are tinctures and extracts, all through the chemical experts, produced of the same strength. Pills covered with a gelatin coat, and capsules, are not only less objectionable to the sensitive patient, but answer some purpose besides that of insoluble bullets in the digestive tract.

Many lives are saved by means of stimulants, emetics and narcotics, which can now be given by means of the hypodermic needle to patients conscious and unconscious. In the drug line many things are new, but because new not necessarily better than some of the older which they would displace. In all progress much is developed that is evanescent, as during a rising tide, where the general tendency is upward, many a wave comes in which does not reach

the mark of the preceding one. Were it not for the continual hard work by which many things become known which are of little value, there would not be made those great discoveries which bless the world. The first great revolution in surgery during the half century was due to the discovery of anesthesia, and within a few years this has been for many operations displaced by local anesthesia by the use of cocaine, eucaine, etc. By means of these substances the patient can watch the surgeon removing a tumor without feeling pain. The coal-tar derivatives have passed the experimental stage and have proved themselves worthy of a high place among things medical, having almost displaced aconite, chloral, and many other anodynes.

I must mention serum therapy, which, in the example of antitoxin at least, has probably saved more lives in the last five years than any other drug. Can you imagine anything more glorious than the undoubted proofs of the life-saving power of this new discovery in scientific medicines? Heretofore the diagnosis of laryngeal diphtheria or membranous croup was but the death knell striking anguish to the hearts of devoted parents. Now, thanks to the discoverers of antitoxin and all others working along these lines, the great majority of these little sick ones become living jewels in the crown of scientific medicine. Serum therapy is yet in its infancy; who can tell what its future will be!

I have attempted in these few broken remarks to emphasize the wonderful times through which we are passing, and this for a purpose. Drive a stake at the date 1848, to which I have drawn your attention, and another at that point so memorable in your career, May 12, 1898. Note carefully the progress that has been achieved in the world's history in science, literature and art during this time, then project the line drawn through these two landmarks into the future.

A few, not many, of this class will be able to write its history fifty years hence, and among the uncertainties this much is certain: that scientific activity has never been more marked than at the present time, and results are to be achieved and progress made that none but a paretic would think of, much less to his thoughts give utterance.

It may not be the lot of any of you to be epoch-makers; there are very few such; even the greatest discoverers in geography, history or science are but very little in advance of many others working in the same direction. You all desire to be successful, and to be that, while not necessarily epoch-makers, you must keep up with the procession. Is the outlook discouraging? By no means to the sturdy man with pluck and energy and good training at his back; without these qualities he can do nothing else than take a back seat. You have received a training in the Detroit College of Medicine better and more efficient than that given to any preceding class. Your opportunities have been essentially better than those of nearly every one of your instructors. The classes that graduate five years from now are going to have opportunities and are going to receive a training immensely better than has fallen to your lot.

You ask why. I answer, simply because the medical world is progressing and your alma mater has shown herself in the past willing and able to keep abreast of the best. She would not stay behind if she could, and could not if

she would. There are men in our profession, all through the country, in places large and small, who have been leaders for fifteen, twenty, and more than a quarter of a century of years. Are they leaders now *because* they were at the end of their first decade? By no means. Man after man has come into competition with him but could not head him, because, fully aware of the wonderful changes going on year after year, he has not lagged by the wayside but has kept himself ever in the front. He has taken to himself the new theories which have been proven well founded. He has adopted new methods wherever, to his conservative mind, they have seemed consistent with sound judgment. He has never had a desire or time to experiment with every new remedy advertised on the market, but, with a true scientific spirit, would throw away an old, tried remedy when assured that a new was a better one.

The man of experience has a handicap over you, and he needs it, for matching training against training, opportunity against opportunity, the graduates of 1898 will beat the other men every time. Over and over again is heard the complaint of the middle-aged physician that the people desire the younger man. Why is this? It is because of the well known fact that the younger men are better trained than the older, coupled with the growing conviction that this and that older man is not keeping up with the procession.

Do these statements give you hope? Well they may, for many of you, going to new places, will not find it very difficult to win in competition with the slow-going man or men with whom you come in contact; but this very success, readily won, brings with it many dangers. One of those is that having won you will lie down on your laurels and wait for that active graduate of 1903 to come along and relegate you to a back seat; and let me tell you that he will surely do it unless you are eternally vigilant. It is not essential to permanent success that any of you should be reendowed with brains, but you must use all the energy and all the brains you have all the time. I have spoken of these many men throughout our land who have kept to the front during long periods. How have they done it? By being fully alive to the progress and demands of the times. One cannot be thus in touch with the best things our science gives by always staying at his office or around the drug store, or corner grocery, or even in his own town. He must give up the drug store and grocery loafing places; he must not know what loafing is. His office must be kept supplied with the best medical journals, even if, to meet the expense, strict economy must be exercised in other directions. Through perusal of the journals, a new book will be found from time to time absolutely necessary. If there is a medical society in the county, the progressive man will be a member of it; if there is none, he will be prompt to form one. In the Michigan State Medical Society there are about five hundred members. In the State there are something over three thousand physicians, and I think I can safely say that, with few exceptions, all the up-to-date successful practitioners are among the five hundred. The physician who thinks enough of himself to take advantage of medical journals of the best type, county and State medical societies, and gains knowledge and inspiration directly therefrom, is the one that the people want. They have no use

for the man who always keeps himself within easy reach and is continually afraid that he will lose a chance call. Don't you know that the sportsman always gets the most pleasure in hunting the rarest game? He may shoot blackbirds if there is nothing else around, but let him hear that turkeys are over yonder range, and he has no longer an interest in blackbirds.

No penny-wise and pound-foolish physician will be successful. The doctor is a marked man in the community, and the people know whether he is lazy and carelessly drifting, or whether he is making the most of himself and his opportunities and thus able to give to his patients the best.

Upon this eventful night in your career, I desire to congratulate you upon your achievements. You have worked hard and deserve the confidence of your alma mater and the public; but to reach those high ideals which should be yours, it must never be forgotten that we are in a rushing age, and although everything may be a blank that I have said, may this word "Progress" ever ring in your ears. Progress must be; you cannot help it; not in the abstract will it be of advantage to you, but in the concrete; your success physically, mentally and professionally will depend upon how you progress.

SIMPLE AND SATISFACTORY METHOD OF EXAMINING THE URINE.*

BY CHARLES W. DULLES, M.D., PHILADELPHIA,

Fellow of the College of Physicians, and of the Academy of Surgery of Philadelphia.

I have chosen for my subject a homely topic, because I hope it may be useful to some of my colleagues to hear how easy it is to examine the urine systematically as part of the work done to establish an accurate diagnosis. I need not dwell upon the importance of such an examination, but may illustrate its usefulness in disclosing unsuspected conditions by two cases that have recently been under my care. One was that of a man of large means who offered me an unlimited fee if I should cure him of a psoriasis that had puzzled others. As one of the first steps in my investigation I had him send me a specimen of his urine. When I examined this I saw the hope of a large fee disappear, for I found the man's urine to contain nearly eight per cent. of sugar, and that (although he did not look like a very sick man or feel sick at all) he was more likely to die soon than to get well of his psoriasis—and this indeed happened. Another more recent case was that of a man with unmistakable quotidian intermittent fever, the routine examination of whose urine showed that he had also glycosuria and cystitis. Similar unexpected revelations have so often followed examinations that neither my patients nor I saw marked need for, that I make it a rule to examine the urine of every patient that comes under my care, except for trifling causes; and even these are sometimes included. In recommending a like course to those who have not already adopted it, I want to say how easy it is to carry it out. The books and the apparatus used in medical schools, and the lectures given on this subject, might naturally persuade one that examining the urine is a difficult and laborious task. But it is no such thing. For more than twenty years I

* Read before the Medical Society of the State of Pennsylvania, May 18, 1898.

have examined and kept records of examinations of urine in very many conditions of general health or of disease, and I long since came to the conclusion that only a few ingredients of the urine are of such importance that they should be looked for in all cases. If they are duly watched, the careful practitioner may disregard all the rest that take up so much space in the most used treatises on analysis or examination of the urine, and be thankful that so plain a duty to his patients is so easy to discharge.

The details essential to a simple and a satisfactory examination of the urine cover the following points: quantity, color, clearness, odor, reaction, specific gravity, albumin, sugar, sediment. The apparatus required includes a so-called urinometer, a test tube, blue litmus paper, a spirit lamp, some strong nitric acid, a solution of caustic soda or potash in water (one part to eight is a good strength), and a microscope. I always have also at hand some acetic acid.

The examination is conducted by asking about the quantity passed in twenty-four hours, looking at the color and relative clearness (or turbidity), smelling at the specimen, and testing its reaction with a strip of blue litmus paper, while its specific gravity is ascertained with the urinometer. Then urine is poured into a test tube to the depth of two inches, and if the specimen is alkaline one drop of nitric acid (or two or three of acetic acid) is added. If the urine contains precipitated phosphates, the acid will clear the specimen up; if the turbidity persists, this is due principally to urates, or to pus, blood or epithelium cells, and the specimen may be filtered if necessary. In any case the acidulated (or normally slightly acid) urine is warmed gradually over the flame of the lamp until it boils gently. If albumin is present in any quantity worthy of serious consideration it will show itself by the formation of the well known whitish cloud. For the next step, a like quantity of urine is put into the well washed test tube (or another one), and half as large a quantity of the solution of soda or potash is added. If this clears the specimen up at all, the fact shows that urates are present in excess, or perhaps pus. If much pus is present the urine will by this test acquire a curious syrupy consistency. The mixture is now shaken and warmed, when any excess of phosphates will be shown by a flocculent clouding. Then the heating process is carefully continued until the boiling point is reached and maintained for a few seconds, when if any sugar is present it will be revealed by a change of color in the specimen, from a bright canary yellow, through orange and reddish-brown, to black, in direct ratio to the proportion of sugar present. The lighter shades may be due to other ingredients, but the darker ones are unequivocal signs of the presence of glucose. When one of the tests indicates the presence of albumin or sugar further and perhaps other tests are desirable; but, on the other hand, when they give purely negative results the patient has neither albuminuria nor glycosuria.

These simple tests having been applied, the sediment of the urine should be examined with the microscope. A good specimen may be obtained by allowing a test tube full of the urine to stand upright and quiet for twenty-four hours; or a bead of deposit may be secured in two minutes by means of a centrifuge. (My own comparative experiments lead me to think that three

minutes on the centrifuge, at about two thousand revolutions a minute, is not nearly so reliable as natural sedimentation by rest and gravitation.)

The microscopical examination, which is indispensable to a complete investigation, requires that the examiner shall be able, from previous observations or by comparing what he sees with good pictures of the things to be found in the sediments from urine, to recognize and properly class the findings in each examination: the most important being blood, pus, tube casts, epithelium cells, and certain crystalline deposits. Into the details of this I cannot and need not now go.

One further suggestion that I would make is, that in all cases a record should be made of the results of examinations of urine. It is well, I find, to have printed slips containing in a column the words I used above to indicate the points investigated, each slip having a blank for the name of the patient and the date when the specimen was passed and that when it was examined.

Name.....
Date passed.....
Date examined.....
Quantity.
Color.
Clearness.
Odor.
Reaction.
Specific gravity.
Albumin.
Sugar.
Sediment (quantity).
Microscopical examination.

When such slips are filled up they may be put into one's case-book, or they may be kept in alphabetical order in a drawer or a portfolio. I keep my records together with what the stationers know as a "klip," that can be sprung on at the back and holds the leaves together like those of a book.

In conclusion, I would say that, for clinical purposes, the only tests of urine that are of consequence are the ones I have mentioned. They are the only ones that add information of value in regard to diagnosis, although others are interesting scientifically and provide agreeable variety to clinical lectures. Moreover, the general practitioner should remember that some of the tests described in the books are so delicate that they are capable of demonstrating the presence of albumin or sugar in almost any urine; for this reason I think the good old tests that I have recommended are the best for general use. They can be carried out with a minimum of trouble, time, and apparatus; and I trust that a knowledge of this fact may contribute to the more general employment of this very important measure in diagnosis.

The lepers of the Orange Free State are in part placed on a farm in the neighborhood of Bloemfontein, in part maintained on Robben Island at the expense of the State. A proposal is now made that the lepers should be removed from the Island and placed upon another farm in the Free State.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE PATENT ON ANTITOXIN.

The announcement that Professor Behring has been granted a patent as the inventor of diphtheria antitoxin will be received by the medical profession with feelings of keen disappointment. The profession of this country has always sternly discountenanced any attempt on the part of its members to make scientific achievements opportunities of personal profit. Such discoveries as the medical profession has made have been fully and freely donated to the service of suffering humanity. Professor Behring's claim to be the exclusive inventor of antitoxin not only indicates a spirit of commercialism which does its possessor no credit, but it displays a disposition to assume credit for the labors of others and to make of these an occasion of personal gain which can only indicate a high degree of moral perversity.

Professor Behring claims as his invention: 1. A process "of producing diphtheria antitoxin, which consists in inoculating horses or other animals capable of being infected with diphtheria with repeated doses of diphtheria poison or living diphtheria bacilli of gradually increasing quantity and strength so as to immunize them and form in the blood a counter-poison for destroying the poison secreted by said bacilli, drawing off the blood from said animals, separating the serum from the blood corpuscles, and concentrating the former for use substantially as set forth.

"2. As a new substance, diphtheria antitoxin, consisting of the concentrated serum of the blood of animals treated with diphtheria poison and having the characteristic of immunizing test animals against infection with diphtheria, and curing them when artificially infected with diphtheria, said serum containing a counter-poison having the property of destroying the poison secreted by the diphtheria bacilli substantially as set forth."

It is almost superfluous to point out to any well-informed reader that Behring's claim to have done this is as preposterous as it is unjust. The principles upon which immunization to diphtheria was finally achieved were of gradual growth, the outcome of researches by thousands of untiring workers. The foundation of the work was undoubtedly laid by Pasteur in his method of immunizing against chicken cholera and anthrax. So long ago as 1887 Sewall immunized pigeons against the poison of rattlesnakes. He says, with genuine

modesty, "his work was undertaken with the hope that it might form a worthy contribution to the theory of prophylaxis," and it was a most worthy contribution. In 1887 Roux and Chamberland immunized animals against malignant edema with sterilized anthrax cultures. In 1890, the same year in which Behring and Kitasato published their results in immunizing animals against diphtheria and tetanus, Fraenkel published his results in diphtheria after treating animals by weakened germs and filtered cultures. In the clinical uses of the serum Aronson's name must not be forgotten. His serum was first used in the Children's Hospital at Berlin in 1894. The serum of Roux had been used in one of the hospitals of Paris a month earlier than Aronson's in Germany. Emerich and Aronson both dispute the priority of Behring, and the French Academy of Sciences awarded their prize for antitoxin jointly to Behring and Roux, a fact which very clearly denotes the difficulty of estimating priority of merit in a scientific struggle in which the numerous competitors were so equally distinguished

The principle which lies at the foundation of the invention of diphtheria antitoxin, and that which underlies all serum therapeutics, is that the blood of immune animals can be used in the treatment of others. Behring did not discover this principle, and in its application he was undoubtedly anticipated by the Japanese workers. If to any single man must be ascribed the distinction of being the inventor and discoverer of the beneficent principle of immunization, the honor belongs to the immortal Pasteur.

The manufacture of antitoxin has been carried out for many years in England, France, Switzerland, Italy, Russia, and Japan, and in these countries no one has had the temerity to attempt to control exclusively its manufacture. In this country it is made by five Boards of Health and by several manufacturing firms. In this country alone has an attempt been made to monopolize its production, it being admitted that elsewhere the claims of any patentee are inadmissible.

If Professor Behring admits any merit in the work of his predecessors and contemporaries, his claim to be the exclusive inventor of diphtheria antitoxin is in contravention of all the ethics of a scientist's career. His claim is an offence against common morality. Had Simpson patented chloroform anesthesia, or had Lister patented antiseptic surgery, the world would have had two selfish empirics, and lost two medical heroes. If Behring, by the righteous judgment of mankind, can be adjudged sole and undisputed inventor of antitoxin, he has a place in the Temple of Fame for achieving the most beneficent discovery of modern times. It remains to be seen whether the temptation to be rich will overcome his ambition to be great, and whether for a tinsel crown he will barter a diadem of everlasting renown.

THE MANAGEMENT OF GUNSHOT WOUNDS.

It is as yet too early to contrast with former military experiences the surgical results of the present war. Two prevailing influences will undoubtedly modify the course and effect of modern gunshot wounds: one the changes in weapons and projectiles, and the other the introduction into surgical practise of the principles of asepsis and antisepsis. Modern bullets

may have become more deadly, but modern wounds have certainly become less deadly.

The dictum of the late Professor Nausbaum that "the fate of the wounded man rests in the hands of the one who applies the first dressing" is probably as true to-day as when it was first uttered. The further injunction of Dr. Senn, "never probe a bullet wound on the battle-field," is one which past experience enforces. The probe has been a deadly instrument, and is responsible for a high mortality peculiarly its own.

All action on the part of the medical department tending to centralize hospital treatment must certainly be wise. The superseding of regimental hospitals by divisional ones is a judicious action. If the regiment be involved in disaster, the regimental surgeons will be too few to be of adequate use, and if the regiment escapes misfortune there will be need of the surgeon's services elsewhere. The first care of the injured should be as simple as possible. It should resemble that given by an ambulance surgeon in ordinary emergency practise, and limited to the arrest of active hemorrhage and the application of an occlusive dressing by the hospital corps and company bearers. The disinfection of wounds in the field is impracticable, and probing is to be absolutely prohibited until the patient arrives at some place where he can receive the full advantages of hospital treatment.

Probably the greatest boon to the soldier will be found in the substitution of the *x*-ray for the probe. While the modern probe, invested as it is with antiseptic precautions, will not be the deadly instrument it has proved to be in former years, the *x*-ray will give the same information certainly and precisely and without the danger of sepsis.

The gunshot wounds of the intestine will still prove formidable factors in the bills of mortality. When, however, it is remembered that laparotomy, enterectomy, abdominal drainage and irrigation, sterilized suturing, and a new understanding of dietetic requirements are now included in the expedients of modern surgery, it can be at least predicted that a happier outlook than in former wars awaits the soldier subjected to this grave condition of affairs.

EDITORIAL NOTES.

The Red Cross.

The inevitable barbarism of war is always mitigated by the higher humanity for which the Red Cross stands. It was at the battle of Solferino in 1857 that Henry Dunans of Geneva, witnessing the neglect suffered by the wounded and dying, conceived the idea for which the Red Cross now stands. Through his efforts a convention representing sixteen governments met in Geneva in 1864. The representatives of these governments agreed to regard as neutral societies giving succor to the injured. The treaty, out of compliment to the enlightened Swiss republic under whose auspices the convention met, designated a red cross on a white ground as the emblem under which these aid societies should be designated. This symbol is the reverse of the Swiss flag, which is a white cross on a red ground. Forty governments have now given their adhesion to the principles advocated by the Red Cross societies.

ITEMS AND NOTES.

In London only a few physicians have telephones.

The health of the Pope is again reported to be precarious.

Two new cases of yellow fever were reported at Fort McHenry, Mississippi, June 20.

The town of Dijon, in France, has received $20,000 from the will of the late Tarnier.

Last year the medical students registered in England, Scotland, and Ireland numbered 4200.

Twenty-two medical students have graduated from the Johns Hopkins Medical School this year.

Santiago de Cuba has been visited only twice in the past ten years with an epidemic of yellow fever.

In Cuba, from March 1895 to March 1897, yellow fever destroyed 318 officers and 13,000 soldiers.

Sir William Hingston, of Montreal, has received the degree of LL.D. from the Ottawa University.

At Vienna, July 28 to August 2, the Third International Congress of Applied Chemistry will meet.

The next meeting of the American Academy of Railway Surgeons will be held on October 5, 6, and 7, 1898.

It is reported that many cases of smallpox have been discovered at Fredonia, about forty miles from Buffalo.

Richmond, Middleburgh, and other towns in Central and Eastern Kentucky, are wrestling with an epidemic of smallpox.

The quarter-centennial celebration of the establishment of the Michigan State Board of Health will be held in Detroit August 9.

The Russian minister of public instruction has issued on the grounds of public health a decree prohibiting the use of the corset by women.

Dr. Osler, who will succeed Dr. Welch as Dean of the Johns Hopkins Medical School next October, is getting out a new edition of his "Practice of Medicine."

TYPHOID FEVER of rather severe type is epidemic in Lancaster, Pa. The Board of Health attributes the outbreak to pollution of the Conestoga Creek, the source of the city's water-supply.

THE Quadrangle Club of the Chicago University, which was destroyed by fire last year, was opened June 20 by a large reception given by the Club to the University and Department faculties.

THE University of Göttingen has awarded the Ortho-Volbo prize for the greatest advance in science for the past two years to Professor Roentgen in Würzburg. The value of the prize is about $2500.

DR. MARY WALKER, a nurse and surgeon who rendered valuable service in the Civil War, but more generally known for the peculiar costume she wears, is to have an increase in pension from $5 to $20 per month.

THE present war has brought to light the fact that Dr. Antommarchi, who attended Napoleon during his last illness at St. Helena, is buried in Santiago de Cuba, where he gave his services free to the poor for many years.

THE old Columbian University Preparatory School in Washington is to be transformed into a hospital, fitted with all approved sanitary appliances, and conducted in connection with the Columbian Medical School.

MR. DAVID KANE, of New York, has offered the use of his summer home on Jekyll Island as a hospital for the sick and wounded sailors. This island is off the southern coast of Georgia and a short distance from Windsor.

NOTWITHSTANDING the adoption of strong measures against the plague that have been instituted at Bombay, the disease has continued to spread until over 25,000 persons have died in that city and over 80,000 in that Presidency.

THE San Diego (Cal.) Medical Society has elected women physicians to fill its offices this year. Dr. Magee, who has been secretary for ten years, stepped out to make room for Mrs. Dr. Nelson. There will also be a woman president and vice-president.

THE *Medical News* states that the Maryland State Legislature has appropriated $400,000 to the Johns Hopkins University to tide it over its financial straits, due to the loss sustained in the default of the Baltimore and Ohio Railroad Company.

THE monument to Pasteur, in front of the Pantheon in Paris, is now almost completed. The sculptor has added a group of a mother and her child thanking Pasteur, whom Fame is in the act of crowning with laurels. The international subscription to the memorial has reached over $50,000.

THE war between the United States and Spain has begun to make itself felt in Paris in a professional way. Several of the leading American physicians

in Paris have hitherto had a clientèle composed largely of their compatriots; there is now, however, considerable falling off in the number of those coming from America.

It is asserted by medical authority that there are more blind people in Spain, in proportion to population, than in any other country in Europe. At the beginning of the war it appeared that the whole nation was blind, but there is strong reason for the opinion that surgical operations by the United States will open their eyes.

In Russia eleven laboratories are engaged in the manufacture of diphtheria serum, in which the entire people place great confidence, and not without reason, as in 44,631 registered cases in which the serum was used the death-rate was but fourteen per cent. against eighty-one per cent. of the 6507 cases in which it was not employed.

The *Scientific American* of July 2 calls attention to the great value of cold tea flavored with a few drops of lemon-juice as a soldier's beverage, and cites Sir John Hall, K.C.B., on the Kaffir War of 1852, in which a march of 1000 miles was covered by 200 men in seventy-one days on cold tea without either wine, spirits, or beer. The experience of Indian officers and of Lord Wolseley is also quoted.

An establishment has recently been opened at Berlin to supply "diabetes milk" made according to Von Noorden's formula, one per cent. sugar and six per cent. fat; also Jaworski's "strength milk" for forced nutrition, with passive exercise, ten per cent. fat; but the main object is the production of milk for infants made to correspond to mother's milk by diluting and centrifugalizing cow's milk and adding milk-sugar according to the formula of Professor Gaertner, of Vienna.

Paris is a city of hospitals, it having twenty supported by the public, with an aggregate of twelve thousand beds, from which are discharged annually about one hundred and ten thousand patients, of whom forty thousand are women. The annual average of deaths in these hospitals is seven thousand men, five thousand women, and three thousand children. The Assistance Publique expends annually 36,000,000 francs on benevolent institutions, which assist about four hundred and sixty-seven thousand persons.

Dr. John S. Maguire, of Seattle, Washington, is dead, aged sixty-five years. Dr. Maguire had the honor of being one of the famous 600 whose deeds are told in the "Charge of the Light Brigade." He also received medallions and marks of honor for brilliant service at Ingomar in the Crimean War. In 1871 he resigned his commission in the British army, and after a short residence in Australia went to San Francisco, where he practised for some time. He came to Seattle in 1889, where he resided until the time of his death.

The Red Cross Society of Paris has opened a subscription list on behalf of the wounded of both the American and Spanish armies. The society heads the list with a subscription of $10,000. In this connection it is observed that during the Franco-German war the society raised $2400, and it has since raised $600,000 more on behalf of the wounded in various colonial expeditions. The Italian Red Cross Society has offered its assistance to the American and Spanish Red Cross branches, and has placed at their disposal its sanitary appliances and other articles for the use of the sick and wounded.

The different countries of Europe vary greatly in the average stature of their people. The Scotch are the tallest, averaging 5 feet 10 inches, on a level with the Polynesians and Armenians. At the other extreme are the southern Italians, French, and Spaniards, all the shortest people, except the dwarf tribes of Africa. The average height in Ireland is 5 feet 9 inches; in England and Scandinavia, 5 feet 7 inches; in Wales, Germany, and Denmark, 5 feet 6 inches; eastern France, 5 feet 5 inches; Spain, Switzerland, northern and central Italy, 5 feet 4 inches; Portugal and southern Italy, 5 feet 3 inches.

Mr. H. Martyn Hart, of the Cathedral Vestry, Denver, Col., solicits employment or assistance for a Persian, Joseph Shimmoon, who has been in this country for four years; has struggled to obtain a medical education, and has been more than a year a medical student in the University of Denver. The man knows English splendidly, has a remarkably good head, but he finds it very difficult to get his living and study medicine at the same time. He is capable and willing to do anything, his whole anxiety being to fit himself to do some good in his benighted country, where there is no qualified medical practitioner.

A recent decision of the Ministry of Public Worship, of Education, and of Medical Affairs in Germany is of interest. Prescriptions for internal use in Germany may not be repeated for the patient by an apothecary unless the physician signifies his approval in writing. External remedies, however, may be repeated. Substances prescribed as eye-washes, or those for inhalation, for subcutaneous injection, or for clysters and suppositories are by this recent decision classed among internal remedies as regards their repetition, though the regulations as to bottles and labels that hold for external remedies still apply to them.

According to an English journal, the Spanish soldier is a frugal liver, his commissariat allowance being two meals a day—one at 9 A.M., the other at 5 P.M. In some corps coffee and soup are served out in the early morning. A pound and a half of bread a day constitutes the government ration; any food beyond this must be bought by the private at the canteen. He gets little meat, and keeps in excellent condition on a chunk of dry black bread, a little oil, and a clove of garlic a day. If to this he can add a pint of wine, which tastes like vinegar and water, he feels happy. There is one thing he cannot go without, and that is his cigarette.

Dr. Lacerda reiterates his assertion that it is possible and practicable to entirely eradicate yellow fever in a town by tearing down the old, damp, sunless houses that are known to be foci of infection. In disinfecting those that it is impossible to destroy, the germs die in the sewers and in sunshine, the usual means of transmission being the air and only in a circumscribed radius, although they can be carried in clothing, merchandise, etc. Dr. Lacerda also states that persons who have become acclimated to yellow fever may lose their immunity by an eight months' residence in a temperate climate.

Some idea of the cordial feeling of Kaiser Wilhelm toward the medical profession in Germany may be gathered from the number of medical men who were invited to be present at the dinner given at the Royal Palace at Berlin on June 16, on the occasion of the tenth anniversary of his accession to the throne. All of the German physicians who attended his father, the late Emperor Frederick, were present. Beside the chiefs of the medical staff of the army, who were officially present, there were in attendance Professors von Leyden, Waldeyer, Gerhardt, and von Bergmann, of Berlin, von Bramann of Halle, Moritz Schmidt of Frankfort, and Tobold and Ernesti.

The European press has reported an operation that is probably destined to have much more than ordinary significance. The daughter of the Sultan of Turkey was operated on successfully for what would seem to have been hypertrophic stenosis of the pylorus. The operation was performed by Djemil Pasha, whom visitors to the surgical section of the recent International Medical Congress at Moscow will remember as an unassuming young man, who, though the representative of the Turkish Government, was only in evidence when he had something to say, which he did briefly and pointedly. After the operation he received the Osmanic order. Seven surgeons were present at the operation, and the dissemination of the knowledge of the operation among the Turks is likely to have a most salutary effect with regard to the medical and surgical treatment of Turkish women by men.

M. Vincent stated, at a meeting of the Academy of Medicine held in Paris May 10, that he had found that French soldiers are, on the average, one hundred times more subject to typhoid fever than native soldiers, a singular observation, because this disease is, in general, serious when it attacks Arabs. The comparative exemption of the Arabs depends, in his opinion, neither on a previous attack, nor on a slow acclimatization consequent on non-residence in towns, but on a natural immunity comparable to the immunity of negroes against yellow fever or of Algerian sheep against anthrax. M. Vincent endeavored to discover if the blood obtained from Arabs caused agglutination of the typhoid bacilli. The blood of twenty-three natives was used for that purpose, but it presented no distinct serum reaction, the phenomena being exactly the same as those yielded by the blood of persons susceptible to typhoid fever. This constitutes a new proof that the agglutinating power of the blood is not necessarily connected with immunity either natural or acquired, and that the serum reaction is an action of infection and perhaps of defense, but not a reaction of immunity.

NEW PUBLICATIONS.

AMERICAN SYSTEM OF PRACTICAL MEDICINE.

The fourth and final volume of the American System of Practical Medicine is now issued. The present volume treats of Diseases of the Nervous System and Mind, Vasomotor and Trophic Disorders, Diseases of the Muscles, Osteo-Malacia, Rachitis, Rheumatism, Arthritis, Gout, Lithæmia, Obesity, Scurvy, and Addison's Disease. The carefully prepared and well digested articles on the Brain and Central Nervous System will make the present volume one of great practical value. The American System is now complete. The problem of creating a library of medicine in four convenient volumes was a difficult one, and one which has been very successfully accomplished. The reader of this volume will easily assure himself that American text-books of medicine are as authoritative and complete as any existing. This work is one which meets an ever present necessity in that it provides the practitioner with the maximum of information at the minimum of expense.

A System of Practical Medicine. By American Authors. Edited by Alfred Lee Loomis, M.D., late Professor of Pathology and Practical Medicine in the New York University, and William Gilman Thompson, M.D., Professor of Medicine in the Cornell University Medical College, New York. In four imperial octavo volumes. Volume IV: Diseases of the Nervous System and Mind; Vasomotor and Trophic Disorders; Diseases of the Muscles; Osteo-Malacia; Rachitis; Rheumatism; Arthritis; Gout; Lithæmia; Obesity; Scurvy; Addison's Disease. 1099 pages, 95 engravings, and 8 full-page plates in colors and monochrome. For sale by subscription. Per volume, cloth, $5.00; leather, $6.00; half morocco, $7.00. Philadelphia and New York: Lea Brothers & Co., Publishers, 1898.

A MANUAL OF HYGIENE AND SANITATION.

This manual affords a plain and unvarnished statement of the fundamental principles and facts of hygiene and sanitation. It is in all respects concise and practical and discusses the topics of practical sanitation simply and scientifically. The various chapters treat of Bacteriology, the Atmosphere, Ventilation and Heating, Water, Food, Stimulants and Beverages, Personal Hygiene, School Hygiene, Disinfection and Quarantine, Removal and Disposal of Sewage, Vital Statistics, and the Examination of Air, Water, and Food. The work appears to be one of the best which has recently been offered for the use of the practising physician. The chapters on Water, Food and Beverages seem exceptionally valuable.

A Manual of Hygiene and Sanitation. By Seneca Egbert, A.M., M.D., Professor of Hygiene, Medico-Chirurgical College, Philadelphia. Philadelphia: Lea Bros. & Co.

ATLAS OF DISEASES OF THE LARYNX.

W. B. Saunders has added to his group of medical hand-atlases a volume on Diseases of the Larynx, by Prof. Dr. L. Grünwald, translated and edited by Charles P. Grayson, M.D., of Philadelphia. The work is uniform with other hand-atlases by the same publisher, and contains the original colored plates made from water-color sketches. A short sketch of the anatomy and physiology of the larynx, with brief chapters on its diseases and treatment, makes the first part of the book valuable to students and general practitioners. There are over one hundred accurately colored plates in the body of the work, each of which illustrates a definite pathologic condition. Each plate is accompanied by a short clinical history of the case which it illustrates, making a perusal of the book almost as valuable as a course of clinical instruction. Much credit is also due the translator and American editor for the smoothness of the English, which yet retains the pith and virility of the original German.

Atlas of Diseases of the Larynx. By Dr. L. Grünwald, of Munich. Edited by Charles P. Grayson, M.D., Lecturer on Laryngology and Rhingology in the University of Pennsylvania; Physician-in-Charge, Throat and Nose Department, Hospital of the University of Pennsylvania. With 107 colored figures on 44 plates, and 25 text illustrations. Cloth, net $2.50.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

The Treatment of Gunshot Wounds.

Dr. Nicholas Senn, in an article in the *Journal of the American Medical Association* on the above subject, summed up his paper as follows:

1. In theory and practise military surgery is equivalent in every respect to emergency practise in civil life.

2. The wounded soldier is entitled to the same degree of immunity against infection as persons in civil life suffering from similar injuries.

3. The fate of the wounded rests in the hands of the one who applies the first dressing.

4. The first dressing should be as simple as possible, including an antiseptic powder composed of boracic acid four parts, salicylic acid one part, a small compress of cotton, safety pins, and a piece of gauze forty inches square.

5. Any attempt to disinfect a wound on the battle-field is impracticable.

6. The first dressing stations and the field hospitals are the legitimate places where the work of the hospital corps and company bearers is to be revised and supplemented. All formal operations must be performed in the field hospitals where the wounded can receive the full benefits of aseptic and antiseptic precautions.

7. Probing for bullets on the battle-field must be absolutely prohibited.

8. Elastic constriction for the arrest of hemorrhage must not be continued for more than four to six hours for fear of causing gangrene.

9. The *x*-ray will prove a more valuable diagnostic resource than the probe in locating bullets lodged in the body.

10. Gunshot wounds of the extremities must be treated upon the most conservative plan, the indications for primary amputation being limited to cases in which injury of the soft parts, vessels and nerves suspends or seriously threatens the nutrition of the limb below the seat of injury.

11. Operative interference is indicated in all penetrating gunshot wounds of the skull.

12. Gunshot wounds of the chest should be treated by hermetically sealing the wounds under the strictest aseptic precautions.

13. Laparotomy in penetrating gunshot wounds of the abdomen is indicated in all cases where life is threatened by hemorrhage of visceral wounds and the general condition of the patient is such as to sustain the expectation that he will survive the immediate effects of the operation.

Tattooing; Its History, Manner of Introduction, and Method of Removal.

Dr. R. H. Skillern, in the *Philadelphia Medical Journal* of June 18, says: "From the earliest infancy of the race, mankind has shown a disposition to ornament himself. Tattooing has been practised since prehistoric times. The

oldest reference in Eastern Asia states that 3000 years ago a Chinese prince, nominated to the throne against his will, had himself tattooed in order to render his succession impossible. In Japan it has been forbidden by the Government and is dying out, but here is where it reached its greatest perfection. It has been estimated that in the year 1885, 30,000 in Tokio were tattooed. To remove these stains successfully one should know how they have been introduced and of what the stains are composed. As a rule the stains used are for the most part carbon. It naturally would not be difficult to effect their removal by something that would either bleach or better still digest them. Hydrogen dioxide, hyrazone or hydrazone have been used to remove these marks. They all act by bleaching the coloring matter and are often ineffectual. The use of glycerole of papaine has already been suggested by Melson and others, and is probably the easiest, least painful and most efficient method that is at present used. The technique of the operation is extremely simple, and a large area may be gone over at one sitting. The instruments necessary are three or four very fine needles which may be grasped by a needle-holder and placed side by side in close proximity. The parts are then thoroughly washed in mercuric chloride 1 to 1000 and are then anesthetized by a spray of ethyl chloride. Enough glycerole of papaine is poured on the skin to cover those parts of the marks to be operated upon. This is now worked into the tattoo by pricking with the needles, and should only go deep enough to draw a small quantity of blood. The marks should be gone over several times, going well to the outside to make sure all parts have been reached, followed by a dressing of glycerole of papaine, gauze, and adhesive plaster. This dressing should be allowed to remain undisturbed for two or three days. At the end of that time the parts should be examined. At the second examination, at the end of five days, the marks will be found to be obviously disappearing. The skin will present a hazy blue color, but in no portion can the marks be made out distinctly. The surface is slightly raised, much resembling a superficial burn. In a few days crusts will form where the needles have penetrated the skin, and when these fall off the marks will have for the most part disappeared. In some cases in which the marks are very dense it is necessary to go over the parts twice, the second time usually removing them completely."

Pathological and Clinical Phases of Gall-stones.

Dr. A. H. Cordia, in the *Journal of the American Medical Association* of July 8, concludes his paper as follows: (1) Cholelithiasis is of frequent occurence and usually gives rise to symptoms either severe or obscure; (2) cholesterin, as a gall-stone producing agent, must be present in an abnormal quantity; (3) cholesterin is in a great measure a product resulting from the destruction and disintegration of the epithelium of the biliary ducts and gall-bladder; (4) bilirubin-calcium, an insoluble compound formed by the union of bilirubin and the lime salts, is the nucleus of most of the stones formed in the gall-bladder; (5) jaundice, ptomaine poisoning and suppuration are late symptoms of cholelithiasis; (6) dyspeptic symptoms, swarthy skin, uneasiness in the region of the gall-bladder (congestion of liver) and loss of weight are

some of the remote and local symptoms of the presence of gall-stones; (7) inflammatory diseases of the duodenum and bile passages are the most direct causative factors in the production of gall-stones; (8) the surgery of these cases is especially difficult and the inexperienced should not undertake it; (9) a ball-valve stone usually continues to give rise to symptoms until removed by surgical means; (10) stones in the gall-bladder producing septic symptoms should be removed.

New Method for Radical Cure of Inguinal Hernia.

Dr. George R. Fowler, in the *Annals of Surgery*, has contributed a new operation for the radical cure of inguinal hernia. He summarizes the steps of his operation as follows: (1) A curved skin incision which furnishes easy access to all the parts involved in inguinal hernia; (2) splitting the anterior walls of the inguinal canal from the external to the internal ring; (3) dissolution of the cord and sac from the surrounding parts, after which these are separated from each other and cleared well up to the internal ring; (4) double ligature of the deep epigastric artery with a sufficient space between the ligatures to permit of incision; (5) cutting away of the neck of the sac and incision of the posterior wall of the inguinal canal and Hesselbach's triangle; (6) the cord is transplaced into the peritoneal cavity from the side of the internal ring to a point below the level of the pubic bone; (7) broad approximation and suturing the peritoneum and transversalis fascia in the cord for the space mentioned; (8) obliteration of the internal ring of the inguinal canal by accurate suturing and strengthening of Hesselbach's triangle and the near point of emergence of the cord by outward displacement of the pubic attachment of the corresponding rectus muscle.

MEDICINE.

Ice Treatment of Acute Pneumonia.

Dr. Thomas J. Maze, in the *Philadelphia Medical Journal* for June, 1898, says that by the ice treatment of acute pneumonia is meant the local application of ice to the chest over the consolidated lung area, for the purpose of modifying and abating the symptoms and morbid changes which accompany pulmonary inflammation. Ice is best applied in wide-mouthed rubber bags, but in the absence of the latter it may be used wrapped in towels. No fear that the patient may catch cold from this source need be felt. The number of times the ice should be renewed depends very much on the degree of the fever. The application should be continued until the temperature comes to or near the normal point to remain there. Additionally to the ice on the chest, the application of one or two ice-bags to the head is of great value in case there is high fever, delirium, or restlessness.

Among the beneficial effects of cold in pneumonia are diminution of the respiration frequency, reduction of fever, relief of pain and distress in the chest, and promotion of a general feeling of well-being and quietness.

The heart is also toned up and subdued in its action. Besides these effects, it also has the power of checking the extension of the pneumonia process in the lung and bringing about resolution. Among the practical advantages of ice over local application to the chest, like hot poultices, etc., are in the first place the readiness with which the cold may be applied in changes without disturbing the position of the patient's body, and in the second place, the facility with which the chest may be examined without removing more than one or two ice-bags at a time. The latter is of special importance inasmuch as it gives opportunity for the frequent examination of the chest in this disease, which owing to its tendency to quickly migrate from one spot to another shows that it is a perfidious disease.

The Treatment of Bronchitis.

Under this title Dr. H. Quincke, of Kiel (*Berliner Klin. Woch.*), has recently offered a contribution of considerable interest. Starting with the principle that wherever there is a collection of pus recovery is best facilitated by its rapid removal, he relates some experiences in treating chronic bronchitis with slight bronchiectasis, by means of certain changes in the ordinary posture of the patient. Having noted that many of these patients coughed a little during the day, scarcely any in the first half of the night, but towards morning in the early hours had persistent cough with profuse purulent expectoration, he decided that this course indicated that the secretion had slowly collected in the bronchi and lower lobes, and that the tendency to cough occurred only when there had been a decided accumulation of secretion. His treatment consisted in having his patient lie flat on a couch, from six to eight o'clock in the morning, and again during the same period in the evening. After a few days the lower end of the bed was raised from eight to ten inches, so as to incline the axis of the body toward the head, thus facilitating freer expectoration.

In selected cases, this procedure often in a week produced an appreciable and after two to four weeks a very decided diminution of the secretion, such as one often observes after evacuating abscesses and pleural empyemas. This procedure is satisfactory for those cases of chronic bronchitis where there has occurred cylindrical or sack-shaped dilatation in the lower lobes; it was of no value in the case of diffuse, especially fresh, bronchitis, with a regular general secretion.

For What Period of Time Can Immunity from Diphtheria be Conferred by a Single Injection of Antitoxin?

Dr. F. G. Morrell, in the *Boston Medical and Surgical Journal* for March, 1898, closes his paper with the following conclusions: (1) That immunity in any given case, no matter how thorough the exposure to diphtheria, may be conferred at least ten days by the injection of a small dose (100 to 250 units) of serum provided it is given twenty-four hours previous to actual infection; (2) that a larger dose (250 units for a child of two, up to 500 units for one of eight or over) will confer safety for three weeks, or to be a little more accu-

rate, let us say twenty days under similar conditions; (3) that no harm will result from the treatment in a vast majority of cases of sick children; probably in no case of a healthy child, provided the serum used is up to the present standard of purity. He also thinks that antitoxin will prevent the occurrence of a follicular tonsillitis or of a coryza in an individual who happens to have the Klebs Loeffler bacillus in his throat, and numbers will be disappointed, for neither of these conditions constitutes a diphtheria any more than the coexistence of the pneumococcus in the saliva and a bronchitis constitutes a frank pneumonia. The writer also states that the physician who fails to promptly immunize the members of a family or close community in which diphtheria breaks out neglects to do his duty by those whose safety lies in his hands.

THERAPEUTICS.

Beechwood Creosote in the Treatment of Phthisis.

Mr. Chas. Lamplaugh, in the *British Medical Journal* of May 28, from 100 cases of phthisis treated with large doses of creosote, sums up the results of his observations as follows: (1) The best beechwood creosote can be given with benefit in amounts varying from 120 to 240 minims daily in cases of pulmonary tuberculosis. (2) The drug is best administered in cod-liver oil or in a spirit as solution, and in some cases the "creosote chamber" or oro-nasal inhaler may be ordered in addition with advantage. (3) The dose should be small at first, but it can be rapidly increased to forty minims three times daily for an adult. In three cases doses of thirty minims three times a day were well borne by children. (4) Large doses rarely cause any gastric disturbance; on the contrary, the appetite is frequently increased, symptoms of dyspepsia disappear, and cod-liver oil is more easily assimilated; the cough, expectoration and night sweats are diminished and the physical sense improved. (5) Owing to its disinfectant action in the alimentary canal, the drug probably diminishes the risk of tuberculous enteritis by self-infection when patients swallow their sputum, but owing to the increased peristalsis which is created by creosote, it is usually contraindicated in cases where the ulceration is already advanced. (6) The drug does not tend to cause hemoptysis but rather to prevent its occurrence. (7) Creosote does not irritate the normal mucous membrane of the genito-urinary tract. (8) Owing to its extremely small cost, creosote can be given to a much larger number of patients than the carbonates of creosote and guaiacol, which respectively cost four and twelve times as much as the older drug.

The Use of Pyoktanin in the Treatment of Cystitis.

Dr. Graham, in the *New York Medical Journal* of June 25, says of the many chronic cases that come to the practitioner, few give him more trouble or yield him less satisfactory results than new cases of chronic cystitis. This, the writer thinks, is due to the anatomy and function of the organ, and not to any extraordinary high degree of resistance to antiseptic agents of the micro-

organisms producing the trouble, or to any particular histological arrangement of the tissues and bowels, as the same pathological condition existing in almost any other mucous membrane of the body would readily yield to ordinary treatment. Every case of inflammation of the bladder is due to micro-organisms, and the greatest obstacle in the way to success in treatment is the fact that asepsis is almost impossible. The difficulties met with in the treatment of this bladder trouble by means of the stronger and more efficient antiseptics are twofold: (1) When they are used in sufficient strength to act as a germicide they are powerful irritants to the delicate mucous lining of the bladder, and their use is attended with considerable pain; (2) they exert their influence on the inflamed membrane only while being applied, which usually is a very short time.

What is needed in the treatment of cystitis is a germicide whose irritant property is very slight, even in concentrated solution, and whose germicidal and antiseptic power is marked in very dilute solutions, and one whose action is continuous over quite a period of time. The best article possessing these four requirements is blue pyoktanin, which can be applied to the most delicate mucous membrane, not only in concentrated solution but in powdered form, with but slight, if any, irritation. As a germicide and antiseptic pyoktanin stands high in the list. It destroys the vitality of the anthrax bacilli in solutions of 1:1000, and retards the development of pus cocci in solutions of 1:2000. Pyoktanin, when applied to an inflamed mucous membrane, stains the same intensely blue. This color remains for a number of days, and of course the pyoktanin is active as an antiseptic as long as any color remains. To substantiate his claims for pyoktanin in the treatment of inflammation of the bladder, the author cites a number of cases in which he was successful through its use.

Thymol as a Remedy in the Fever of Tuberculosis.

E. De Renzi finds that thymol is a valuable remedy in controlling the fever of tuberculosis, which symptom is often very obstinate and troublesome. He finds it to be of distinctly greater value than quinine, antipyrin, acetanilid, and sodium salicylate, as unlike these thymol has no depressing effect. It is administered in four-grain doses in the form of a powder enveloped in a wafer. These may be given three or four times a day, and gradually increased in frequency until sixty or seventy grains are given each day. He finds that tuberculous patients are very tolerant of large doses of thymol and that it is well borne by the stomach, seeming to favor digestion.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,

Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

Puerperal Infection from the Pneumococcus.

Schuhl (*Revue Internat. de Méd. et de Chir. Prat.*, 1896, No. 22) reports the case of a II-para, from whom the placenta was removed manually on account

of uterine atony and hemorrhage. Portions of the chorion remaining, curettage was done on the fourth day. At this time the patient developed angina, and an extensive membranous exudate appeared, the discharges became fetid, the uterus and adnexa inflamed, and pleuritis with rather extensive effusion developed. On the seventh day the child had a purulent conjunctivitis of the left eye, which was soon communicated to the other side. Bacteriological examination of the tonsillar exudate, the lochial discharge, and pus from the child's eye showed that the several conditions were caused by infection with the pneumococcus of Friedländer.

Dysmenorrhea.

Dr. H. Talley (*Philadelphia Polyclinic*) states that a mixture of caffeine, potassium bromide and tincture gelsemium is of much value in the treatment of dysmenorrhea. This should be administered for a few days before menstruation.

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT,
Attending Neurologist to Harper Hospital.

Hematomyelia from Gunshot Wounds of the Spine.

H. W. Cushing, in the June number of the *American Journal of Medical Sciences*, says gunshot injuries of the spinal column are of comparative rarity. The mortality of cases with symptoms of cord lesion, especially in the cervical region and without operative interference, reaches a high percentage. In those cases which recover the nature of the lesion is often difficult of determination, the disturbances of motility and sensibility giving clue alone to the spinal segments involved and the transverse extent of the injury, but not to its pathological anatomy. After citing a number of cases of spinal injuries Dr. Cushing reaches the following conclusions: 1. Paralytic symptoms following traumatism in the cervical region when there is no resultant spinal deformity or laceration of the cord are in the majority of cases due to hemorrhage into the substance of the cord. 2. For this hemorrhage there seems to be a site of predilection in the lower part of the cervical enlargement producing the symptoms of the "typhus inferior" of Kraus. 3. The hemorrhage as a rule occurring primarily on one side leads to symptoms of a "Brown-Sequard" type of paralysis. 4. The deep reflexes on the side of the hemorrhage may be retained for a time, then disappear, and finally return, to become exaggerated. 5. The hemorrhage being primarily into the gray matter and its resolution often leading to cyst formation is productive in many cases of a symptom complex quite like that of syringomyelia. 6. Immediate prognosis of this type of hematomyelia is good without operative interference used in the case of gunshot wounds when they are uncomplicated by sepsis.

Complication Affecting the Nervous System in the Treatment of Typhoid Fever.

Dr. W. H. Haynes, in the *Brooklyn Medical Journal* for July, 1898, says as a result of the many improved methods of treatment the number of recoveries has been very much increased, so that the rate of mortality at present is less than ten per cent. The first and simplest of the nervous manifestations are those pathological sensations termed "paresthesias," which are a disturbance of sensibility causing a feeling of numbness, deadness and coldness in particular spots and localities, usually in the extremities, very annoying at times, and such as are also complained of in other conditions of nerve tire or disturbed nerve function, due to a state of autoinfection and blood impoverishment and consequent malnutrition of the whole system. The next most frequent complication met with is "peripheral neuritis," either simply by itself or combined with phlebitis, and it is also met with in analogous conditions after parturition due to reflex causes and resulting in a form of milk-leg. The next condition of the nervous system found complicating typhoid fever is that causing hemiplegia, and which has been prominently brought to the notice of the profession for the last few years, notably by Dr. Osler, of Johns Hopkins, Baltimore.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D

Latent Tuberculosis of the Tonsil.

In the current *Lancet* is published an interesting article with this title by Dr. Hugh Walsham. The writer, reviewing the work done by others in determining tubercular infection of the glands of the neck through the tonsils, gives an able report of a series of investigations which he had instituted, partly in tissue obtained from living patients, and partly from post-mortem examinations.

In twenty out of thirty-four post-mortem examinations, the tonsils were found to be more or less tuberculous. In only two of these thirty-four cases had there been anything during life to call attention to the tonsils. In most cases the tonsil was atrophied; in only one or two was there any hypertrophy; in none was there pain on swallowing or enlargement of the cervical glands. In a large majority of these cases the tubercular infection of the tonsil was secondary, received from the blood current or by autoinfection from the passage of bacilli-laden sputum. But in a certain number of cases the careful histological examination strongly confirmed the hypothesis of primary infection of the tonsil itself.

The examination of tissue from living subjects, hypertrophied tonsils and adenoid vegetations, was negative in results, but the writer quotes a number of cases reported by other observers in which such tissues were plainly tuberculous, and the evidence all tended to show this as the seat of the primary infection.

The writer deems himself justified in formulating the following conclusions:

(1) That the tonsils instead of being almost immune from tuberculous disease are very frequently affected; (2) that tubercle may be primary in the tonsil; (3) that the tonsils are very frequently affected secondarily in persons suffering from chronic pulmonary tuberculosis; (4) that when the tonsils are tuberculous the cervical glands receiving the lymphatics from these organs are also frequently affected with tubercle; (5) that the follicular glands at the base of the tongue are rarely found tuberculous; and (6) that the tonsils may be affected from without or through the blood stream in acute miliary tuberculosis.

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
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The Serum Exanthemata Observed in the Antitoxin Treatment of Diphtheria.

Dr. Berg, in the *Medical Record* of June 18, in a very interesting article, says among the most interesting symptoms to be met with in the treatment of diphtheria with antitoxin on account of its frequency, and because being a subcutaneous lesion it admits of ocular demonstration, is the so-called "antitoxin rash." Although the chief manifestation of this complication consists in a more or less well-marked subcutaneous eruption, this eruption has not, as is the case in acute infectious diseases, a constant and characteristic appearance. At one time it resembles scarlet fever, in another case urticaria; in one erythema, in another measles. Its distribution, as regards the amount of skin involved, is not constant. It does not appear on one portion of the cutaneous surface rather than upon another. The eruption has no fixed duration, being in one case evanescent, in another lasting for days and weeks; frequently in the same patient and at the same time one portion of the body may be affected with an urticarial eruption, while in other portions of the body it may be, for example, scarlatiniform in character. The eruptions following the injections with diphtheria antitoxin are of extreme importance owing to the frequency of their occurrence. In a report of 2183 cases of diphtheria injected with antitoxin, 253 developed exanthemata. It is uniformly characteristic of these eruptions that they belong to the suggestive or hyperemic class of skin lesions, and are grouped under the following heads: (1) Cases which resemble a simple erythema. (2) Cases which resemble erythema scarlatiniform: (*a*) without desquamation, (*b*) with desquamation. (2) Cases which resemble erythema morbilliform: (*a*) without desquamation, (*b*) with desquamation. (4) Cases resembling for the most part erythema multiform; in this group are classed those cases in which the eruption resembles that of urticaria, although differing in many respects from lesions ordinarily termed urticarial.

In all the groups there may be cases in which the eruption is localized or general. Such clinical factors are common to all these varieties of eruptions. Thus prodromal symptoms may be present in all the cases of whatever class,

while in other instances the eruption appears, runs its course, and fades without in any way modifying the clinical course of the diphtheria. By far more frequently, however, a sharp rise of temperature precedes and ushers in the appearance of the eruption. The simple erythematous eruptions are apt to be localized, although sometimes general. The scarlatiniform and morbilliform rashes, especially the latter, are apt to be more general in their distribution. The rashes of the urticarial or erythemal character may be localized or general.

The writer says there can be little to say concerning the pathology of these eruptions as such. The chief fact to be noted is that all the varieties of these rashes described are primarily due to a disturbance of the circulation of the skin. He thinks that these eruptions are due for the most part to the animal blood-serum as such, and not to the antitoxin which it contains; that the cutaneous manifestations are the result of the excretion of the irritant elements of the blood-serum by the sweat-glands and blood-vessels of the skin; and finally, that the careful filtering of the serum is apt to be followed by a diminution in the frequency of these exanthemata.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

Optic Neuritis the Most Striking and Significant Symptom of Brain Tumor.

At Denver, before the American Medical Association, Dr. Edward Jackson mentioned optic neuritis as the most striking and significant symptom of brain tumor, occurring in eighty or ninety per cent. of all cases. It cannot, however, be regarded as pathognomonic, and it is of little value to indicate the location of the tumor. The typical optic neuritis of brain tumor is characterized by great swelling, sometimes 10 or 12 D. (3 millimeters), abruptly limited, at no great distance from the margin of the disk; with arteries narrowed, veins dilated and very tortuous, and small vessels much enlarged, but not very numerous, because scattered through the swollen tissue; small flame-shaped hemorrhages upon or near the papilla; the other portions of the fundus, except for the alteration in the vessels, being normal, or presenting changes that are in most cases slight as compared with those at the disk.

Extraordinary Case of Horse-bite.

Dr. William J. Brown in *The Lancet* of June, 1898, reports an extraordinary case in which the external ear was completely bitten off by a horse and successfully replaced. Despite the fact that the severed ear was covered with dirt and dust, and that no appropriate instruments or dressings were at hand, the wound healed throughout by first intention, but a small portion of the lobe having sloughed away. The severed ear was sutured in place with common needles and thread, after it had been cleansed in warm water.

THE MEDICAL AGE

VOL. XVI. DETROIT, AUGUST 10, 1898. No. 15.

ORIGINAL CONTRIBUTIONS.

ACTINOMYCOSIS.*

BY D. G. BARKALOW, M.D., STRATFORD, IA.

In Gould's Medical Dictionary we find this disease defined as follows: A parasitical, infectious, inoculable disease first observed in cattle, and also occurring in man, characterized by the manifestations of inflammation with or without suppuration, often resulting in the formation of a granulation tumor, and due to the presence of a characteristic micro-parasite, the ray fungus actinomyces bovis, which is composed of fine mycelial threads and club-shaped bodies.

The most frequent and curable form is where the abscesses form about the jaws and teeth. In 1863 and 1868 Perroncito and Rivolta, and Hahn in 1870, found the actinomyces in the diseased jaws of cows. The first demonstration, however, that it is constantly present in the sarcomata of the jaws of cattle, and the first claim to its etiological significance in this disease, was made by Bollinger, in 1877. In 1878 J. Israel reported two cases in man, and in the following year added a third. Subsequently, and up to the present, there have been reported some hundreds of cases, and it can no longer be looked upon as an extremely rare disease. In the vast majority of cases in man, the disease is received from the same source as in the animal; yet by the facts that man habitually cooks most of his food, and is not subject to the abrasions of the mucous membrane of the mouth caused by the mastication of rough fibers and raw hard grain, he is protected, to some extent, from the marked prevalence of the disease shown in cattle in the districts where the disease seems enzootic.

Dentition and carious teeth are etiological factors often seen in the frequency of primary actinomycosis in the jaws and face, especially in young subjects. It is generally concluded that, as in animals so is it in man, the disease germ is introduced with the food, air, or water. Man is largely protected against infection by legal enactment prohibiting the slaughter for sale of diseased animals, by the cooking of most of his food, and by the impaired vigor with which the parasite grows when transferred from animal to man; yet the fact that there is danger of his infection cannot be ignored. The success-

*Read before meeting of Central Medical Society, held in Webster County, Ia., June 21, 1898.

ful transference from man to animal implies the possibility of conveyance from animal to man. Observations have been recorded where the facts point almost certainly to the truth of this proposition. Boracz records a case where the disease was transferred from a man to his wife by the act of kissing; O'Neil, a case where a farmer received the disease from dressing calves suffering from a disease of the skin. Handling or feeding infected cattle or treating actinomycotic horses are also enumerated among the causes of the disease in man.

The pathology of the disease in man is not essentially different from that found in animals. The growth of the parasite produces a local phlegmonous inflammation with a rapid necrosis of tissue, and the disease spreads to adjoining tissues, invading their structures; and from this fact and from the induration found in chronic cases, it has often been mistaken for carcinoma. Infection may occur through any solution of continuity of the skin or mucous membrane, and such solution may be caused by the growth of the actinomyces in a natural cavity like the alveoli of the tonsils or the ducts of glands. The primary local manifestations of the disease may be found in the skin, teeth, gums, jaw-bones, tongue, brain, thorax, air-passages, and in the intestinal and genito-urinary tracts. Poufick reports a case of infection from the bite of a louse; Lesser, three cutaneous diseases. When the lesion extends along the periosteum or the superimposed soft tissues of the neck, it often makes rapid progress on reaching the loose connective tissue of that region. When it attacks the jaws the teeth are loosened, and often all the molars in the affected jaw are extracted to relieve the intense odontalgia. Hochenegg mentions a case where the tongue was the seat of an actinomycotic growth, the infection being caused by a carious tooth. Bollinger has a case on record of a primary actinomycosis of the brain, and cases are numerous where the disease occurred secondarily in the cerebral tissues, causing various forms of paresis. Israel found a carious tooth in infected lung tissue. Primary actinomycosis of the lungs is recorded as follows: Munch 1, Canalie 1, Ullman 1, Hanan 2. Netter furnishes two cases where the pleura and posterior mediastinal glands were affected, and in both cases the lungs were normal. If the primary lesions are found in the stomach or bowels, it is usually caused by the ingestion of the germ with the drinking-water or food. The liver, if at all, is usually affected secondarily to other abdominal organs.

So far as I can determine, there is but one case recorded in which the disease primarily affected the genito-urinary organs. This was a case in an old lady sixty-five years of age, and the lesion was found in the endometrium after a hysterectomy for carcinoma.

The diagnosis will show that while the symptoms will vary according to the organ invaded, and the correct diagnosis must always rest finally on the presence of the actinomyces in the lesion, yet there are certain indications which give rise to a suspicion that the disease may exist. The principal diseases from which it is with the most difficulty differentiated are sarcoma, dental affections, tuberculosis, carcinoma, lupus, and syphilis, or it may simulate phlegmonous inflammation or osteomyelitis. The growth of sarcoma is slower, and it does not degenerate to a suppurative condition so soon. In

tuberculosis the lymphatic glands are almost invariably affected, and the pain and tenderness great. In actinomycosis the glands are rarely affected, and the pain and tenderness almost entirely absent. The same difference is also present in carcinoma, with the additional diagnostic point that the tumor of actinomycosis usually develops under the integument, and invades the skin from within outward, while carcinoma invades the skin from the layers of the epithelium inward. It is distinguished from syphilis by the general appearance of the tumor, the absence of the history of primary lesion, and the non involvement of the adjacent lymphatic glands; also a syphilitic gumma will be sensibly affected in two or three weeks by larger doses of iodide of potassium, which does not act so rapidly in actinomycosis. From lupus and dental affections the disease can only be differentiated by the microscope.

The treatment of the disease is carried out on three general lines: prophylactic, therapeutic, and surgical. In view of the wide range of causation it stands to reason that certain soils are culture fields for the pathogenic germ, and indications point to the proper drainage of such soils as a sanitary measure. During the seasons of pasturage, young teething stock should be withheld from these areas. Food raised on such soils consumed by man should be sterilized by heat, and affected cattle should be promptly destroyed or subjected to curative treatment. Discharges from infected sores should be burned, and all stables used for diseased animals should be properly disinfected. An important precaution for human beings who live where the disease is prevalent is to maintain a healthy condition of the gums and teeth. Farmers should be particularly warned of the habit of chewing straws or weeds, for according to La Place, this is the most prolific source of the disease in man. The most approved method of treatment therapeutically is the use of the iodide of potassium, and it should be thoroughly tried before surgical interference is resorted to, especially where the diseased part is so extensive as to render impossible the complete removal of all affected tissue. The free use of the salt has obtained marvelously successful results in some cases, while in others the benefits have been barely perceptible. In recent and purely actinomycotic lesions the results have been good, but where there exists secondary infective processes, and where the germ is associated with streptococci or staphylococci, the effects of the drug have been less salutary. To obtain the best results from this treatment it should be pushed to iodism, and in all recent and moderate cases a cure is to be expected in from six to seven weeks.

The surgical treatment consists in the complete removal of all infected tissues. The tumors are to be removed, and the resulting cavities scraped of all granulations with a sharp curetting spoon and caustics applied, and washed with a solution of copper sulphate, but of course such procedure is useless where important internal organs are the seat of the lesion. It is unwise to omit local treatment where it can be applied. Some advocate filling the cavities with iodized phenol. A laxative nutritious diet should be prescribed.

Prognosis is serious in proportion to the rapidity with which suppuration occurs. Internal actinomycosis is generally fatal owing to the fact that it is inaccessible. External actinomycosis may result in death from exhaustion, or secondary septic infection, or pyemia. In an analysis of sixty cases, col-

lected by Senn of Chicago, the following conclusions were reached: When the disease involves the head and neck, except in a few cases where the skull and base of the brain were invaded, the course was favorable, the recoveries taking place in from three to nine months. It was found exceptional for the fistulæ to exist or form anew after the lapse of a year. Pulmonary actinomycosis was not universally fatal. Terminations were found more favorable where the anterior abdominal walls were involved than in the cases where the disease invaded the posterior portions. In the cases which presented the manifestations of pyemia and septicemia, death occurred without exception. In some cases where no important functional organs were invaded the disease assumed a chronic character and persisted for years, one especially being under observation thirteen years. In this case the local lesions were confined to the connective tissue about the spinal column.

The only case of this disease which has ever come under my observation occurred in my own practise, and the history of the same is submitted, as follows:

On April 10, 1896, I was called to see Mrs. J——, aged sixty-five, native of Sweden, married. Found her with a temperature of 102°, pulse 114, rapid and difficult respiration, a severe cough and profuse expectoration of a thick, tenacious yellow sputum, considerable emaciation, skin sallow and moist. Physical examination of chest revealed the characteristic signs of phthisis pulmonalis. It was quite impossible to obtain an intelligible history of the case at my first visit, owing to the fact that none of the family able to talk English were present. At a subsequent visit I was informed by the daughter that about Christmas her mother had taken cold, had a chill, and was confined to her bed for a few days, and ever since had been troubled with the cough, which at times had been very bad. I at once concluded that I had to deal with a case of pulmonary tuberculosis, and directed my treatment accordingly. In a few days there was a decided amelioration of the pulmonary disturbances, and a slight general improvement.

About May 1, while making an examination of the chest, I discovered a slight nodule, about the size of half a small hickory nut, at the left sterno-clavicular articulation. It seemed firm, dense, and slightly elastic to the touch, but I gave it no further attention at the time; but on my next visit, made in a day or two, it had more than doubled in size, and on the fifth day was at least 1¾ inches in diameter at the base and quite prominent, and had forced itself into importance in my consideration. It was not an ordinary furuncle, for there had been no pain in that region, no discoloration of the skin, and no tenderness. The glands of the neck and axilla were not affected in any way. Sarcoma was eliminated from the diagnosis because of the rapid growth of the tumor. I advised immediate and thorough excision of the growth and insisted upon this procedure, but was met with peremptory and flat refusal, which I could not overcome, and was forced to be content to sit idly by and watch the thing grow.

About this time an article on actinomycosis came under my eye, in some way—just how I have forgotten—and the reading of it forced upon me the suspicion that I might be mistaken in my diagnosis, and that this might be a

case of that disease; so I decided to examine with a microscope some of the sputum. In making the examination I found the tubercle bacilli absent, and the granular character of the exudate led me to look for the actinomyces; but owing to the fact that I am not an expert manipulator of the microscope, and to the difficulty in properly staining the specimen, my own investigation revealed nothing. Not satisfied, and still anxious to know what disease I had to contend with, I sent some of the sputum to a friend in Chicago, with the request that he examine it and report to me what he found. In a few days he wrote me that it contained the parasite actinomyces bovis.

The tumor continued to increase rapidly in size until about May 20, at which time it was about three inches in diameter and two and a half inches deep, with no signs of suppuration, except it was a little softer and a little diffused about the base. On May 23 I was called by the daughter, who informed me that her mother was very sick. On arrival it hardly required a second glance at my patient to show me that she was now suffering from the secondary septic infection—fever, delirium, and profound adynamia. These conditions increased until death supervened, which occurred on May 26.

This case was of great interest to me for several reasons: (1) It is quite rare in this section; (2) for the difficulties which surrounded the diagnosis; and (3) for the fact that the disease had existed in the lungs five months with no secondary infection, and only twenty-six days elapsed from the day of the discovery of the integumental lesion until death ensued. I might also state that owing to the objections to the use of the knife, the contents of the tumor were not examined, and it is perhaps possible, yet highly improbable, that it was not actinomycotic. The daughter informed me that her mother the fall before had the care of a pet heifer, which had what she called "lumpy jaw."

EUTHANASIA.

BY C. C. MAPES, LOUISVILLE, KY.

When time, or soon or late, shall bring
The dreamless sleep that lulls the dead,
Oblivion! may thy languid wing
Wave gently o'er my dying bed!—BYRON.

In a bitter mood of forlorn despondency, contemplating the inevitable termination of his wretched earthly existence, Lord Byron penned the foregoing lines. From time immemorial the phenomena attending final human dissolution have been regarded as horrible to contemplate; death has been depicted as accompanied by agonizing pain, writhing, struggling, and terror, intensified by abject fear; an ordeal horrible in its significance, viewed from its most favorable aspects.

It has evidently been overlooked that over ninety out of every hundred human beings are unconscious when the grim reaper severs the slender thread; that pain is exceptional—at least its experience—when final dissolution takes place, notwithstanding the individual's previous suffering may have been intense. Therefore, while death may be terrible in its contemplation, its realization is unattended by the usually accredited phenomena.

In the Progress columns of one of our leading medical periodicals* we find, quoted from the pen of Cyrus Edson, the following: "*Death As It Is.*—Perhaps the most common mistake of the lay mind is the association of the dramatic with the conception of death. Nothing is more common than to hear from the pulpit pictures in words of excitement, of alarm, of terror, of the death-beds of those who have not lived religious lives; yet, as a rule, if these pictures are supposed to be those of the unfortunates at the moment of death, they are utterly false. In point of fact, ninety-nine of every hundred human beings are unconscious for several hours before death comes to them; all the majesty of intellect, the tender beauty of thought or sympathy or charity, the very love for those for whom love has filled all waking thoughts, disappear. As a little baby just born into the world is but a little animal, so the sage, the philosopher, the hero, the statesman, he whose thoughts or deeds have writ themselves large in the history of the world, become but dying animals at the last. A merciful unconsciousness sets in, as the mysterious force we call life slowly takes leave of its last citadel, the heart, and what is has become what was. This is death!"

Under the prevailing idea that death is painful, agonizing, terrible, the reflecting mind of man from the earliest ages has endeavored to divine means of painlessly reaching the end—of entering the unknown—without undergoing the supposed agonies. Thus Arbuthnot writes: "The kindest wish of my friends is euthanasia."

The term euthanasia is derived from the Greek εὖ and Θάνατος, which signify an easy, a painless, death. Much of the terror and alarm popularly associated with the conception of death is attributable to ancient superstitious beliefs, which prevail and dominate in the minds of all classes, alike educated and ignorant; therefore modern writers should deal plainly and truthfully with the subject, let the results be what they may.

It would mark a material advance in both science and religion could people be made to believe the truth, viz., that death is not so painful, agonizing, terrorizing, as pictured from the pulpit and elsewhere. While the intelligent application of advanced medical and surgical possibilities has rendered acute and painful diseases more endurable, while death itself has been robbed of a few supposed terrors, when applied to victims of chronic, incurable diseases and deformities, the modern disciples of Esculapius are for the most part as helpless as were those of ancient times.

Prophylaxis and palliation are of paramount importance in the practise of rational therapeusis. If diseases could be prevented, if death could be induced to occur as Nature intended, simply as a candle is extinguished when the fuel is exhausted, contributions of this nature would be superfluous. In incurable maladies palliation merits especial consideration, for in numerous chronic and painful diseases and deformities what can be accomplished except palliation? Individuals suffering from incurable affections often long for relief in final dissolution, yet death will not come; *in rerum natura*, they are perhaps forced to exist for months or even years in physical and mental agony, awaiting the final summons. All known palliative measures may have been exhausted; at

*Medical Age, Detroit, Mich., vol. xii, No. 4.

first certain drugs induced quiet sleep, and thereby temporary relief; finally, nothing except death will alleviate suffering; still the slender thread cannot be artificially severed without incurring the guilt of homicide. After a long period of waiting for natural death, unable to endure the prolonged suffering, a fatal draught is taken, and the victim passes into the unknown—a suicide. And can he be blamed therefor? He was ready to welcome death, but it would not come; restoration to health was impossible; he was a burden to himself and those with whom he came in contact; death would have been merciful in visiting him, was anxiously looked and longed for, but its visit was delayed beyond the point of human endurance.

When such an individual has concluded to end earthly existence; when all hope for restoration to health has vanished; when science has been repeatedly invoked in vain; when life is no longer bearable, and when it has become a burden to all concerned; when death would be welcomed; it would seem an act of human kindness to administer—when earnestly requested to do so by the patient, his family, and friends—a fatal potion of some effective poison which would quietly induce the beginning of that endless sleep! But the law, by which the nation assumes to be governed, states that such an act would be murder, as it recognizes but two conditions under which the taking of a human life is justifiable, viz., punishment for capital crime, and in legitimate self-defense.

Would it not be a humane act to institute measures whereby persons suffering from incurable disease and deformity might be allowed to enter the unknown, at the request of the individual, his family and friends, without incurring the guilt of homicide on the one hand, or suicide on the other, and without waiting for natural death? Many incurably diseased and deformed would undoubtedly be glad to accept such measures if put into effect, under proper legal and other restrictions, that suffering might be thereby terminated under authority of the State.

No legal distinction is made between a human being in health and one suffering from a chronic, incurable malady, or an irremediable deformity; therefore, under existing circumstances, such an unfortunate cannot hope to escape condemnation (?) if he requests to be put out of misery by some merciful means, nor can a fatal potion be administered without incurring equal condemnation, perhaps prosecution for murder. Such is the law, but the law is not always right; many things legally right are morally wrong, and *vice versa.*

An editorial writer* discusses the subject in the following language:

"In the opinion of Socrates medicine and surgery should be applied to such cases as were curable, it being ridiculous to 'pay so much attention to regimen and diet as to drag on a miserable existence as an invalid in the doctor's hands. . . . Esculapius . . . revealed the healing art for the benefit of those whose constitutions were naturally sound; he expelled their disorders by drugs and the use of the knife, . . . but when he found they were hopelessly incurable, he would not attempt to prolong a miserable life by rules and diet, as such persons would be of no use either to themselves or the

**American Practitioner and News*, 1896.

State. Constitutionally diseased persons and the intemperate livers were to be left to be dealt with by Nature, so that they might die of their diseases.'

"This method of neglecting the chronically diseased and incurable is in perfect keeping with the economic practise among the Greeks of casting on the rocks all bantlings who, in consequence of mal-development or inherited disease, were not thought fit to survive. These ideas are heathen, and by no means in accord with the system of Christian charity under which we live, but they were nevertheless expedient, and with modern appliances for softening the method of extermination might not be cruel, and perhaps not unmerciful.

"Indeed, one of the arraignments which a strict application of philosophic principles must make against medicine to-day is that it promotes in much of its function the survival of the unfit. In too much care for the single life it forgets to be careful of the type, and in consequence the hereditarily diseased are kept alive until they have time to reproduce themselves, and thus perpetuate their infirmities through coming generations. . . .

"A natural and logical extension of this question is euthanasia for the relief of persons suffering with painful and necessarily fatal diseases. It has incidentally come to the surface several times during our quarter of the century, but seems to have enlisted only a few timid advocates on the one hand, with a host of vehement antagonists upon the other."

The same issue* quotes the Reverend Charles W. Wendte,† who argues the question logically, cogently, and without offense:

"Although I strongly advocate the destruction of certain people by humane methods, I am not willing that my position in this matter should be misunderstood. All pioneers of thought have suffered misrepresentation, and I desire, as much for the benefit which may result to the world as for the defense of my own reputation as a humane man, to be thoroughly comprehended.

"To my mind one of the most deplorable and moving sights in Christendom to-day is the condition of the incurably diseased among us, especially if they are also in impoverished circumstances. Society should do all in its power to relieve this class, alleviating their sufferings by all the resources known to modern medical science, and placing them above the mental distress and physical misery attaching to personal want.

"But who is to take the responsibility? Certainly not the medical man. On the field of battle some latitude may be allowable to him, but in the ordinary course of life no single individual is to be entrusted with so grave a responsibility. Shall we, then, continue as now, powerless to relieve the fearful suffering of so many unfortunates, turning a deaf ear to their entreaties and leaving them but one resource — suicide? In the name of humanity I say, No!

"A few years ago an engineer of eminence in France, afflicted with a terrible inherited disease, of which he had seen his own father perish under aggravated tortures, took his own life. In his will he explained the violence of his deed, and left to the French Government a large bequest for the establishment of a commission on euthanasia. The French Government, influenced,

* *Loc. cit.*

† *New York Journal.*

it was claimed, by clerical counsels, declined to accept the trust. In this, I believe, it did wrong. Though I appreciate the difficulties attending the matter, and what special dangers to society it may seem to carry with it, I yet believe that the time is rapidly approaching when the painless destruction of incurables will be considered eminently wise, humane, and Christian.

"As in the case of the French suicide, my theory meets with the greatest opposition in clerical circles. In the first place, I am told that He who gives life should take it. Now, I hold that in that case all capital punishment, all forcible resistance to personal violence which may cause death, all war, either offensive or defensive, is wicked and cannot be justified. The murderer should go free, the assassin should go unhanged, and the greatest generals, in place of being lauded as patriots, should be condemned as malefactors. It is plain, therefore, that this doctrine is untenable, and is constantly and rightly ignored by society. To go further, look at the thousands of diseased, suffering, tortured human beings who crawl on the surface of this fair earth—the offspring of human ignorance, brutality, guilt, and shame. Surely, if justice and humanity were to decide the matter, such unfortunate beings would never be allowed to come into existence at all. In fact, leading physicians have told me that they never permitted a human monstrosity to live after it was born.

"But we ought to go a step further. It ought to be a universal law throughout Christendom that the child-bearing of idiots, criminals, the insane, and all incurably diseased persons should be prevented. How? By making it necessary that the physician's certificate should precede the issuance of the marriage license. Go to the children's hospital and see the poor little innocents, malformed, racked, and tortured from no fault of their own. Afflicted with terrible, wasting diseases, without the possibility of permanent restoration, or even relief, death in many cases is only a question of weeks and months. Why insist on continuing the tortures so needless, so undeserved? Do my antagonists think that God loves to behold the agonies of infants?

"Another thing which my clerical critics assert is that God sends pain to discipline and purify us, and we ought not to resist His will. In that case the discoverers of ether and chloroform were guilty of great impiety, and the monument to their memory in Boston should be pulled down.

"Now I argue, as a general thing, that pain—excessive pain, I mean—does not purify the spirit of man. On the contrary, it blunts, hardens, and brutalizes it. Of course there are noble exceptions which go to prove this rule. By our present methods we drive men to suicide by our inhumanity toward them. A pitiful case in point came under my own observation.

"Now, in order to put a check to such happenings, to put behind us all sickly, false sentimentality in the handling of cases such as I have cited, I suggest that there should be formed a properly constituted tribunal, acting only when duly called upon by suffering humanity, and then under every necessary safeguard and restraint. Let this jury consist of a number of medical men, representatives of the Government, and any others who might advantageously serve. To this tribunal have submitted any petition for examination or release which might be made by the incurably diseased and indorsed by their

families. Then, if they were found incapable of recovery and sure to endure needless and great agony, the tribunal shall be empowered to gently, painlessly and humanely put them out of suffering and give them a release into the better world. . . . The surgeon must give pain to effect a cure. So humankind, which, under God, gives life, may, in the Divine Spirit of justice and mercy, take it back again.

"It may be urged that this theory is of pagan and not Christian origin. What of that? I am discussing its wisdom, not its origin. To lessen the sum of human misery in the world should be our chief endeavor as humanitarians, regardless of creeds, and the calm discussion of euthanasia, which is now in progress, encourages me to believe that under certain plain restrictions it will inevitably be adopted by all civilized and Christian nations."

These statements are rather remarkable coming from the pen of a "Reverend," and he covers the subject so logically, so practically, and so fully, that his views are reproduced *in extenso*.

It is stated that during the eighteenth century it was the custom in the Dublin hospitals to administer liberal doses of a fatal poison to patients suffering from incurable maladies.

Among some of the savage races the aged and infirm are put to death. In this way the weak, inefficient and useless members of the race are destroyed, and there is survival of the fittest.

In the animal kingdom destruction of the kind is known to frequently occur.* This is particularly common where several young are brought forth at a time, some of which, from lack of proper nourishment, or otherwise, becoming weak and infirm, are killed by the parents. "Preparatory to their southern flight, the storks of northern Europe assemble and ruthlessly destroy all those who are unfit to endure the long flight to the Mediterranean and Africa."

One writer says: "Death is the only disease for which there is no remedy, and it is our mission to fight this last disease and not to play into its hand." We are always willing to be enlightened, and to be informed that death is a "disease" is especially gratifying, for, such being true, some one possessing enterprise characteristic of the present age will discover a remedy which shall stay its onward march.

Euthanasia has had but few advocates. Whenever a writer, medical or otherwise, has exhibited the temerity to proclaim its advisability, under the strictest safeguard and restraint, in the hopeless, chronically diseased and deformed, even at the request of the sufferer, his family and friends, to suggest the "advisability of allowing a wretch whose sufferings have driven him to suicide to have his quietus made by the authority of the State instead of thrusting himself into the unknown with the stain of self-murder upon his soul," his statements have been met with a veritable avalanche of vehement, adverse, antagonistic criticism.

The inherent justice of any issue can only be determined by careful and impartial weighing of deduced evidence *pro* and *con*. Moreover, in all questions of vital importance there almost necessarily exists a difference of

* See article by the writer, MEDICAL AGE, vol. xv, No. 24, 1897.

opinion, and a diversity of views in the present instance is not surprising; but the affirmative votes represent a considerable minority, the principal reason being—"love for the weak and afflicted is firmly fixed in the heart of man, and no consideration for the general good would induce him to destroy the object of his pitying love. Philanthropy pales and weakens before the strong, tender affection for the diseased and afflicted."

It would appear that the wisdom of adopting a system of euthanasia hardly admits of reasonable doubt in the minds of those who should be interested in the welfare of humanity, although the sentimentalist will argue against the adoption of such a plan so long as the world stands.

Those who have had the misfortune to witness "death by inches" in inoperable and incurable disease can appreciate the suffering entailed so long as the unfortunate remains conscious; those who have listened to the patient's entreaties for *anything* to end suffering can realize the physical and mental torture endured; those who have heard such an unfortunate implore the approach and embrace of death can appreciate that euthanasia with an appropriate system, under proper legal and other restraint, which would be necessary to guard against possible abuse, would be a boon to humanity.

The plan suggested by the Reverend Wendte seems logical, reasonable, and feasible—*i.e.*, that there be formed a properly constituted tribunal acting only when duly called upon by suffering humanity. To this tribunal have submitted any petition which might be made by the incurably diseased, indorsed by their families. If the case were then deemed hopeless, and sure to endure needless and great agony, the tribunal to authorize the application of measures to put the sufferer out of misery, allowing him to enter the unknown by the authority of the State gently, quietly, painlessly, peacefully!

This, then, is the object of euthanasia, and would not its adoption markedly lessen the sum of human misery?

A CASE OF TETANUS TREATED BY INTERCRANIAL INJECTIONS OF ANTITETANUS SERUM.

BY DANIEL LA FERTE, M.D.,
Professor of Clinical Surgery and Surgeon to Harper Hospital, Detroit, Mich.

J. C——, a colored boy, aged seventeen, of good family and personal history, was brought to Harper Hospital July 4 suffering from a gunshot wound. The patient had been celebrating the Fourth of July, and a rusty nail fired from a toy cannon had pierced his right leg, entering at the inner aspect about five inches below the knee-cap. The missile had penetrated the leg, passing between the tibia and fibula, and had emerged at the opposite side. The muscular tissues were lacerated and obtruded from the wound, and a profuse hemorrhage occurred. This hemorrhage recurred each time the wound was dressed for three consecutive days. The first treatment of the wound consisted in thorough antiseptic irrigation and the insertion of a gauze drain. The next day a discharge with an offensive odor proceeded from the wound, and the patient's temperature was somewhat elevated.

On the afternoon of July 10, six days after the original injury, the patient complained of slight stiffening of the jaws, and well-marked symptoms of trismus were observed. The patient was at once isolated, and the antitetanus serum treatment instituted. The stiffness in the jaws gradually became pronounced, and the muscles of the dorsum became involved. On July 14 he had a convulsion, and again on the 15th a severe convulsion with prolonged opisthotonos. The antitoxin treatment was rigidly pushed under the courteous superintendence of Dr. Houghton. The patient received from fifty to seventy cubic centimeters of serum daily. On July 14 the patient's condition became decidedly critical; the convulsions became more frequent and more severe. Dr. F. W. Mann, who saw the case at this time, called attention to the case of tetanus recently treated by M. Quénu in accordance with the method of Roux and Borrel. The theory underlying this treatment is that in a case of tetanus the toxin develops with greater rapidity than it can be neutralized by the antitoxin if injected into the general circulation. The skull is therefore trephined, and the antitoxin injected intercranially.

The patient's condition at this time was decidedly critical. He had a notable trismus with sardonic grin. There was well-marked tetanus of the trunk, and the limbs were involved in the contractures. It was therefore agreed that this last resort of surgery should be employed.

The patient's scalp was carefully shaved and prepared for operation, and on the afternoon of July 16 he was removed to the amphitheater, and Dr. J. K. Gailey removed a button of bone eight centimeters backwards from the internal angular process at the level of the base of the second frontal convolution. Dr. Houghton then injected the serum drop by drop for a period of six minutes very carefully and cautiously. The injection produced no disturbance whatever, nor did any symptoms of compression supervene. The same proceeding was then undertaken on the opposite side. For twelve hours after the operation the patient appeared to enjoy a period of comparative immunity from the convulsions, but these subsequently recurred, and he died on July 17.

The case reported by Roux and Borrel happily made a recovery. While it is of course possible that serum deposited in close proximity to the motor centers may find its way by diffusion to the affected part, no positive inference is afforded by this case that this is possible. A larger and more extended experience will be needed to assure us that Roux and Borrel have made any very substantial advances by their method, in the serum treatment of tetanus.

THERE is at present in Anzin, France, a centenarian, who enjoys such excellent health that he does not despair of reaching the age of 127 years. M. Jean Baptiste Dubois — that is his name — pretends to know the art of keeping well, and his doctor agrees that his mode of living suits him admirably. When he rises every morning he smokes a pipe. This is followed by a dish of milk soup. He dines at midday, drinks two glasses of wine, and takes his coffee without sugar. At supper he drinks more wine, and finishes the evening *en famille*. His hobby is gardening, and he varies it by rocking his great-granddaughter in her cradle and singing nursery songs.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE INFLUENCE OF DIET ON GOUT.

The conclusions arrived at by Dr. A. P. Luff in his notable Goulstonian Lectures of last year have been added to by a series of elaborate and effective researches by that investigator, which tend not only to disclose the origin of uratic deposits, but in addition to furnish certain clues to the dietetic management of gout.

It will be remembered that Dr. Luff decided that uric acid is only normally produced in the kidney, and is not normally present in the blood of mammals. It is normally formed from urea, probably by conjunction with glycosin; that in gout uric acid is present as a soluble sodium quadriurate, and that in its soluble form it is not a toxic agent. It is precipitated in the tissues as sodium biurate. Its non-excretion in the soluble form is probably due to some affection in the lining epithelium of the convoluted tubes. The sodium quadriurate is not accelerated in its decomposition by diminution of the alkalinity of the blood, nor does increased alkalinity increase the solubility of the sodium biurate. Luff has found that the solubility of sodium biurate is not only increased by the presence in the blood of the saline constituents of vegetables, but that these same salines exercise a remarkable inhibitory power over the decomposition of sodium quadriurate. The solubility of the sodium biurate was also found to be increased by adding the salines of meats.

The bearing of these conclusions upon the dietetic management of gout is noteworthy, and Dr. Luff has recently undertaken a new series of experiments with a view of ascertaining the relative effects of the mineral constituents of meat and vegetables upon the solubility of the biurate, and so to determine inferentially what might retard the conversion of the quadriurate into biurate. Speaking in general, Dr. Luff found that small proportions of the mineral constituents of the ash of nearly all vegetables increased the solubility of the biurate. This could not be attributed apparently to any common saline constituent of vegetables, for by careful experiment it was decided that this property possessed by certain vegetables did not depend upon its sodium, calcium or magnesium salts, but pertained to the vegetables as vegetables. It is to be supposed that the natural vegetable ash is a combination which cannot be successfully imitated, and like certain mineral waters it possesses virtues which its imitation by artificial means does not possess. The vege-

tables specially active in retarding the conversion of the quadriurate into biurate were spinach, Brussels sprouts, turnip tops, turnips, and celery.

The important point in these conclusions is that the alkaline factor is not the important one achieved by the administration of these vegetables. The methods by which our ancestors relieved each other of exacerbations of gout by the administration of vegetable ashes receive some justification through the researches effected in the modern chemical laboratory.

EDITORIAL NOTES.

A Needed Study.

Will not some veterinary surgeon tell us a little more about the relation of dogs to man? There must be certain matters of applied bacteriology which are well worth considering. Probably a great many skin affections are communicable from dogs to man. Certainly many parasitic affections, such as scabies and tinea, have been known to be freely transferred from canines. Little is known as to how far pathogenic bacteria may be conveyed by lower animals. The part played by domestic animals in the production of the disease is one which certainly deserves the closest study and attention.

Firing on Non-combatants.

It would seem that there can be no doubt that the Spanish soldiers have resorted to the most inhuman and dishonorable resources of war: that of shooting upon the wounded and their medical attendants. Several of the sharpshooters have been caught red-handed, among them the murderers of Drs. Danforth and Troval, and it is to be hoped that these rascals will be summarily executed. If these uncivilized methods are concurred in by the Spanish people, it is not only high time that they were driven out of the Western Hemisphere, but also expelled from Europe.

A New Method of Treating Tetanus.

Elsewhere will be found the record of a case which was submitted to a new treatment for tetanus sanctioned by no less an authority than the illustrious Roux. This consists in removing a button of bone from the skull, and injecting intercranially the tetanus antitoxin. The idea which underlies the treatment is that the antitoxin is not keeping pace with the developing toxin, and hence damage to the central nervous system ensues. The local injection of antitoxin acts just where it is most needed, and so promotes recovery.

New Modes of Motion.

By a simple contrivance Mr. Chas. E. Tripler has compressed 800 cubic feet of air into one foot. At a temperature of 312° below zero air assumes a liquid form and can be transported without difficulty. The expansion of this liquid to the gaseous form will of course furnish a motor force capable of being used for various purposes. Professor Dewar is also reported to have successfully achieved the liquefaction of hydrogen. These discoveries are such the significance of which cannot yet be appreciated.

ITEMS AND NOTES.

KEY WEST has been made the hospital center of the war.

TYPHOID FEVER is still widely prevalent in the army camps.

FORTY people died in Antwerp after eating ice cream at a street stand.

APPENDICITIS has been very prevalent of late in Elizabeth, New Jersey.

THE water-supply of Baltimore is causing considerable anxiety to those interested in it.

THE two hospital ships *Solace* and *Relief* have cost the Government more than $1,000,000.

MEDICINE at the coming World's Fair in France is going to be well represented in a special department.

KOCH concludes that those who have suffered from yellow fever, and recovered therefrom without the aid of quinine, have acquired immunity.

SURGEON-GENERAL STERNBERG has taken the initiatory steps for securing a hospital train for the transportation of the invalided troops from the front.

THE *Medical and Surgical Monitor*, published in Indianapolis, is the latest journalistic enterprise. The first number indicates that it will be a successful journal.

THE Prince of Wales has fractured his patella. His exalted rank will probably prevent him from being treated radically, so he may be lame for life.

THE Morgue, which in the history of Paris has played such an effective part, is going to be rebuilt, and before next year alterations will be effected at a cost of $80,000.

THE University of New York and Bellevue Hospital Medical School have united their forces, and will henceforth be known as the Medical Department of the University of New York.

THE *British Medical Journal* states that during the academic year of 1896–97 sixteen per cent. of the candidates for the doctor's degree in the Medical Faculty of Paris failed.

THOMAS EDISON has stated that he is working on an apparatus the purpose of which will be to adapt the telephone to making permanent records of cardiac and other vital sounds.

OVER one hundred persons who had attended a large meeting at Summit, N. J., were seized one evening with symptoms of ptomaine poisoning. Potted ham is said to have been the offending cause.

SANDOW, the strong man, has become a quack doctor. He advertises to cure dyspepsia and indigestion with medicine, while guaranteeing an increase of three inches in the chest measurement.

KRYPTON is the name given to a new element discovered in the air by Professor W. Ramsey, of University College, London. It is present in the proportion of about 1 part to 10,000 by volume.

BARONESS HIRSCH has given $480,000 for the erection and partial endowment of the Biological Institute for Paris. A hospital is to be attached, in which suitable cases will be treated by Dr. R. Roux.

To clean rusty instruments immerse them over night in a saturated solution of stannous chloride. Rub dry with chamois after rinsing in running water, and they will be of a bright silvery whiteness.

A BOARD of army surgeons in Washington is about to report upon the abdominal bandage, and state whether the wearing of flannel over the abdomen affords any protection against diarrheal disease in the tropics.

THE higher education of women in Germany has received a severe check. The German Medical Association, numbering over 15,000 members, unanimously adopted a motion against the admission of women to the study of medicine.

SANARELLI, the discoverer of the alleged bacillus of yellow fever, and originator of an antitoxin serum for the treatment of the disease, has sold his rights of manufacture to a firm in Montevideo for $30,000. This will be bad news for yellow fever patients.

THE transport *Seneca*, which arrived at New York July 20, with nearly one hundred sick and wounded from Santiago, arrived in a very filthy condition, short of food and water, and without any medical or surgical supplies. The affair will undoubtedly be investigated.

A SECTION ON TROPICAL DISEASES, the first of its kind to be established, will be one of the features of the coming meeting of the British Medical Association, which will meet in Edinburgh July 26. The section will be presided over by Dr. Patrick Manson, the well known authority on the subject.

KOCH reports that there are now four centers for the plague — Thibet, Hunan in China, the West Coast of Arabia, and Kissiba in West Africa. He believes the dangers of an outbreak of plague in Europe are considerable. In West Africa he found that monkeys and rats suffered from the disease.

IN England a company has been formed with a physician at its head, the purpose of which is to provide special consultants in particular cases. The idea of the company is to act in an intermediate capacity between patients and specialists. The company meets with considerable condemnation in medical circles.

In Augsburg in Germany, physicians riding bicycles are given a right of way in the streets. In place of the name-plate the physician's bicycle bears a sign displaying a red cross on a white field. In this way the bicycle is distinguished from other bicycles, and the physician is permitted to make greater speed in his calls of duty.

The camphor habit is said to be one of the recognized habits in which young women in London indulge. It is begun with a view of producing a clear and creamy complexion, but the drug produces a mild form of intoxication, which ultimately enslaves the victim and causes a dreamy state with a constant desire to rest or sleep.

It is proposed to hold in Bombay a plague congress. The records of the Bombay Medical and Physical Society, it is said, contain many old papers bearing on plague epidemics in India that are of the highest interest and importance. It is considered desirable that these records should now include an accurate exposition of the modern knowledge of the disease.

A newspaper proprietor was recently sued for damages by a patent medicine man for an error which was made in printing a testimonial. By the omission of a comma the testimonial was made to read thus: "I now find myself cured, after being brought to the very gates of death by having taken only five bottles of your medicine." (A comma was omitted after death.)

The Berlin vegetarians are much elated over some recent athletic events. In a walking match of seventy miles, the six vegetarians who started reached the goal in perfect condition, showing no trace of fatigue, whilst of the eleven non-vegetarians, only one was able to hold out to the end, and he arrived long after the others and very weary. The vegetarian victor did the distance in 14½ hours.

The difference between being a man's host and a man's physician is illustrated by a story told of Sir Richard Quain. After telling his patient not to touch champagne or port, he asked him to dinner, and then, with equal warmth, urged him to try very special brands of those wines which he brought out for his guest. The patient indulged, and pondered over the mysteries of medical advice.

Professor Huxley defined the duties of a university as "a corporation which has charge of the interests of knowledge as such and the business of which is to represent knowledge by the requirements of its members, to increase knowledge by their investigations, to diffuse knowledge by their teaching, and last, but not least, to create a respect for knowledge among their fellow men by their personal example and influence."

Dr. Jean Charcot, the son of the famous Charcot, considering the memory of his father had been insulted by an article written by Dr. Lagelouse, in the *Opinion Médicale*, challenged the writer. The duel was fought with swords.

M. Charcot received a buttonhole wound on the thenar eminence, "making it impossible for him to go on." Honor was satisfied, and the affair ended, sublime to the Frenchman, but ridiculous to the rest of the world.

The New York *Evening Post* says: "We may soon be hearing more of the services of forgotten heroes at Santiago—the army surgeons. With hostilities at an end, more attention will be given to the work done in hospitals; but the heroic qualities of the medical staff have been displayed on the field as conspicuously as those of the men in the fighting-line. Under fire, without the moral support of being combatants, their courage and self-devotion are fully as great as can be found in the front ranks. Surgeon Church exposed himself as freely as any of the Rough Riders, and his work of relief was as gallant as their charge."

Another Army Hospital Ship.—The steamship *Missouri*, one of the seven purchased by the Government from the Atlantic Transport Line, which was the ship chartered by the Government to send grain to Russia during the famine there a few years ago, has been selected as the new army hospital ship. The *Missouri* is due at Philadelphia from Liverpool on July 21; discharging her cargo, she will go to New York to be refitted. Major William H. Arthur, surgeon, U. S. V., has been detailed as chief surgeon of the ship. The Daughters of the American Revolution will provide a steam launch to be used as an ambulance boat, and a library will be donated by members of the Stock Exchange in New York City.

Edward Lewis, of Chicago, is, in a literal sense, the largest-hearted man in the world; and to this enviable distinction he adds that of possessing a heart which is as musical as it is large. The beating of his heart is distinctly audible at a distance of several yards; and it emits sounds which are described as distinctly musical. This remarkable organ has lately been photographed by means of the x-rays, and is found to be nearly three times the usual size, while it has an expansion of two inches. On the left side it extends three inches beyond the limit of the normal heart, and on the right side it reaches to the ribs. Lewis has for some years been an object of study to the leading physicians and surgeons of the world, who consider him to be the greatest physical enigma living.

NEW PUBLICATIONS.

MODERN SURGERY.

Those who will remember the first edition of Da Costa's Surgery will be gratified to see that ts excellence has been recognized, and the outcome of the patronage accorded it is the new and handsome volume its publishers now present. The work is intended to serve as a condensed manual of practical surgery. It is thoroughly modern in tone, as the reader will convince himself when he peruses the sections dealing with the wounds of modern projectiles, electrical injuries, Bodin's method of colostomy, Senn's method of shoulder-joint resection, etc.

The work will be an admirable one for students to provide themselves with for their coming educational campaign.

A Manual of Modern Surgery, General and Operative. By John Charles Da Costa, M.D., Clinical Professor of Surgery, Jefferson Medical College, Philadelphia. Price, cloth $4, half morocco $5, net. Philadelphia: W. B. Saunders, 1898.

A PRIMER OF PSYCHOLOGY AND MENTAL DISEASE.

The early call for a new edition of Dr. Burr's Primer of Psychology and Mental Disease is a fitting indication of the esteem in which this little book has come to be regarded among students of psychology. As an adjunct to the armamentarium of the teacher in the training school, this book will prove invaluable. Its definitions are couched in such simple terms that they will be readily understood by the most unpromising pupil. The whole conduct of the asylum attendant is carefully reviewed, and the suggestions to them are such as can only proceed from a rich and ripe experience in the care of mental cases.

A Primer of Psychology and Mental Disease. For use in Training Schools for Attendants and Nurses and in Medical Classes. By C. B. Burr, M.D., Medical Director of Oak Grove Hospital. Second Edition. Philadelphia: F. A. Davis Co., 1898.

INTERNATIONAL CLINICS.

The new volume of International Clinics contains the usual number of interesting lectures. It is difficult to particularize any lecture of exceptional merit when all are so good. Dr. J. K. Young contributes an excellent illustrated article upon the "Gymnastic Treatment of Scoliosis." A lecture on "Sprue" will enlighten readers on an unfamiliar subject. The lecture by Nicholas Senn, on "Cystitis," is a good example of what a clinical lecture should be. So long as this excellent standard of achievement is maintained by the International Clinics, there is no likelihood that their popularity will wane.

International Clinics. A Quarterly of Clinical Lectures. Edited by Judson Daland, M.D., J. Mitchell Graham, M.D., and David W. Finlay, M.D. Volume II, 8th Series. Philadelphia: J. B. Lippincott & Co.

DISEASES OF THE SKIN.

Messrs. Blakiston's Quiz Compend Series has been enriched by the addition of a very excellent little manual upon diseases of the skin. The author has followed Duhring's classification in the presentation of the subject, and has compiled a work which will serve the purpose of rapid reference in the study of dermatology. The book is amply illustrated, and is in every way an excellent manual.

Diseases of the Skin. By Jay F. Schamberg, A.B., M.D. Ninety illustrations. Price, 80 cents, net. Philadelphia: P. Blakiston & Co.

THE OFFICE TREATMENT OF HEMORRHOIDS.

The three lectures by Dr. Kelsey are intended to counteract an idea now too prevalent that the only radical treatment of certain affections is by operation. He shows how much can be done in the cure of painful conditions by office treatment. The reader will pick up a good deal of useful information in these pages.

The Office Treatment of Hemorrhoids, Fistula, etc., Without Operation. By Charles B. Kelsey, A.M., M.D. Price, 75 cents, net. New York. E. R. Pelton, 19 East Sixteenth Street, 1898.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

The Shoulder: Its Mechanism, its Functions, and Rules; Laws of its Dependence on Physical Violence.

Dr. Thomas H. Manley, in the June number of the *American Journal of Surgery and Gynecology*, says it is curious to note that the male is more prone to meet violence with the shoulder than is the female, and as luxations and fractures they are very much more common in the former than in the latter, in whom Colles' fracture greatly preponderates in proportion over the male sex. Strictly speaking, there is no shoulder-joint at all—*i.e.*, the ponderous appendage is in no manner jointed with the trunk directly. From its exposed condition, then, and the complex functions of the shoulder, it is evident that its component or dependent parts are frequently the seat of traumatism. Dislocations involving the acromioclavicular articulations present several features of striking interest: (1) They are comparatively rare, though not so much so as supposed; (2) because of their infrequency, their masked position in fleshy subjects, the slight impediment in function present, and the usual superficial examination, they are very often overlooked after injury until it is too late to secure permanent readjustment; (3) even when they go untreated, the degree of deformity resulting is not very marked, and the recovery of a large share of function in the shoulder is the rule; (4) for evident anatomical reasons this is a type of luxation which surgical expedients are quite impotent to reduce and attain by any evident procedure.

Dislocations involving the scapula-humeral articular are of the most complex and intricate character. In fact, it is often exceedingly difficult to clearly explain what we are to understand by a dislocation or to make clear its etiological factors. No dislocation is attended with greater difficulty in the detecting of its various types, and none plays so many freaks in its actions. Having discovered the presence of a dislocation it is important to determine whether it be complete or incomplete—*i.e.*, a luxation or a subluxation; whether the head of the bone has left the head of the glenoid cavity completely, or simply sagged towards its border and been arrested there. The former are the most common and easily managed. The aggravated type is a serious affair, necessitating special knowledge, discrimination and discretion in its management.

Esophageal Stricture.

The *Wiener Klinische Wochenschrift* reports that at a recent meeting of the Vienna Medical Society Dr. Ebstein exhibited a child three years of age affected with stricture of the esophagus caused by swallowing some chemical irritant. All efforts at passing a sound had failed, and no operative procedure attempted had made esophagoscopy possible. It was finally discovered that in the middle of the mass of cicatricial tissue a lumen existed not larger than

the diameter of a match. A laminaria tent was introduced therein, and after remaining a half hour was removed and was found to have produced considerable dilatation. At the time of exhibiting the case there had been six sittings at which this procedure had been each time repeated, with the result that the child could comfortably swallow liquid nourishment. Ebstein recommended that in such cases and also where there was a foreign body in the esophagus, especially in childhood when the tissues were so resilient, it was well to attempt intra-esophageal relief before esophagotomy.

An Ingenious Method of Obtaining Urine from a Particular Ureter for Diagnostic Purposes.

Dr. Neumann describes in the *Deutsche Medicinische Wochenschrift* a simple and ingenious way of obtaining urine from a particular ureter for diagnostic purposes. He makes use of an instrument constructed like certain Japanese fans, in which the fan can be withdrawn into the handle. He pushes this instrument into the bladder, maintaining it in a central position, and he then extrudes the fan, which is provided with a convex border and fits with approximate accuracy against the posterior vesical wall. He claims by this means to have been enabled to diagnose a unilateral pyonephritis.

MEDICINE.

Daring Adventures of Medical Heroes in the Late War in India.

When the medical history of the last war in India is written it will prove interesting reading. There were many difficulties overcome and hardships endured, with the usual element of danger. A good instance of this was when General Woodhouse was wounded early in the war. A bullet struck him in the thigh, passed down below the knee, broke into pieces, and lodged. The Roentgen ray apparatus revealed the exact conditions, and it was determined to extract the pieces. In the middle of the operation, artificial light being used, the Afridis crawled up and suddenly blazed into the tent, sending thirteen shots through the canvas. Now that might have been a very disturbing circumstance and apt to interfere with the perfect application of the aseptic form of surgery. And what happened? Nothing. The operation went on and was successfully completed as if there was no Afridi within 100 miles.

As usual there were many examples of great personal bravery and devotion to duty in the midst of danger. Surgeon Captain Beyts arrested hemorrhage under a hot fire, and Sir William Lockhart, speaking of the incident, said that no one ever better merited the reward of the Victoria Cross than he. He got nothing; but that is another story. Another medical officer greatly distinguished himself — Surgeon-Lieutenant Hugo.

Lieutenant Ford was dangerously wounded in the shoulder. The bullet cut the artery and he was bleeding to death when Surgeon-Lieutenant V. Hugo came to his aid. The fire was too hot to permit of lights being used.

There was no cover of any sort. It was at the bottom of the cup. Nevertheless, the surgeon struck a match at the peril of his life and examined the wound. The match went out amid a splutter of bullets which kicked up the dust all around, but by its uncertain light he saw the nature of the injury. The officer had already fainted from loss of blood. The doctor seized the artery, and as no other ligature was forthcoming he remained under fire for three hours holding a man's life between his finger and thumb. When at length it seemed that the enemy had broken into the camp, he picked up the still unconscious officer in his arms, and without relaxing his hold bore him to a place of safety. His arm was for many hours paralyzed from cramp with the effects of the exertion of compressing the artery.—*Lancet.*

The Effect of Exercise on the Hemoglobin, with Reference to the Value of Rest in the Treatment of Anemia.

Dr. Wilfred Edgecomb, in the *British Medical Journal* of June 25, 1898, summarizes his very valuable paper on this subject, as follows:

1. There is a normal day fall and night rise in the worth of the corpuscle, representing a daily destruction and regeneration of hemoglobin.

2. Active exercise increases the extent of the day fall and night rise.

3. Active exercise stimulates a slight overproduction of hemoglobin.

4. Passive exercise (massage) diminishes the volume of the blood, but has no effect in diminishing or increasing the amount of hemoglobin.

5. Rest reduces the extent of the day fall in worth, representing a diminished destruction of hemoglobin.

The bearing of these facts on the treatment of anemia is obvious, providing as they do a physiological foundation for the well known value of rest in bed in the treatment of that affection. Inasmuch, however, as the effect of exercise is to stimulate the production of hemoglobin, while that of rest is to lessen its destruction, it may be objected that the conclusions to be drawn from these data are in mutual contradiction. It must be borne in mind, though, that the observations were made on normal subjects in whom the temporary increased destruction of hemoglobin brought about by exercise is fully met and repaired by increased formation. To complete the investigation it is necessary to determine by diurnal observation of the blood of an anemic subject taking considerable exercise, whether the reproduction of the hemoglobin would be sufficient to make good the loss occasioned by exercise. The undesirability of keeping a patient sufficiently long under observation without treatment has prevented the writer examining this point. From clinical experience we may infer with tolerable certainty that construction would fall short of destruction, or at least would not be in excess of it as is the case in health. In other words, that the already seriously diminished amount of hemoglobin would be unable to respond to the call made upon it by exercise, so that gradually the total amount would be further lessened. Rest, on the other hand, by removing the drain, would enable the constructive process to exceed the destructive, and the store of hemoglobin to be gradually built up.

A New Bullet for the Indian Army.

A description of the new service bullet which has been invented to supersede the Dumdum bullet was published in the *Times* of June 28. The Dumdum bullet was introduced in India for the purpose of stopping the rush of fanatics ("ghazi"). It is a solid bullet of hardened lead enveloped in nickel, all but the point, which was left bare, so that on impact the bullet "set up," or expanded, inflicting much more severe wounds than the fully enveloped bullet, which in most cases passed through the body unaltered, much as if it were a bolt of steel. It is stated that the new service bullet is of the same diameter (0.303), the same length (1⅝ inches), and the same weight (215 grains) as the Lee-Metford. "The case is of nickel, the base only being left empty" (*sic*)—it is evident here that "case" means the "envelope" of the bullet, not the cartridge case. The conical end is left empty, and when it strikes a man it burrs, opens backward, and lodges in the body, penetration being lessened and shock increased. We have not seen the bullet in question, and are dependent on the *Times* report; but as we read it the new bullet seems in some ways to resemble the later-pattern Snider bullet, in which there was a cavity in the conical apex, which, containing air compressed on impact, burst open violently and inflicted most severe wounds. In the bullet it would appear that the cavity will be formed by the nickel envelope being left empty in the nose or apex, and on impact the compressed air will act as an explosive, burst and burr the envelope, which, spreading open, will present a large striking surface, and cause immense injuries to trunk and limbs. It would be interesting to know if any experiments with this new bullet have been made on the bodies of animals in the presence of military surgeons, and if so, what their report has been. Professor v. Bruns made some incisive remarks on the Dumdum bullet, going so far as to call it an inhumane projectile; but if the new service bullet acts as it is reported to do, probably some stronger language will result.—*British Medical Journal.*

A Medical Enigma.

Count Cejeck, who claims to be a reduced Bohemian noble, and who for more than a year has puzzled and deluded the cleverest doctors in Chicago, possesses the remarkable gift of being able to simulate any disease under the sun, and to raise or lower his temperature and the beats of his pulse at will.

The Count is a man of thirty-five, of some distinction of speech and appearance and with a plausible manner which has helped him much in his impostures. He has a craving for ease and luxury; and, as he has not the means to gratify it, he feigns serious illnesses and is removed to one hospital or another, where for weeks he is tenderly nursed and fed on delicacies. In this way he has enjoyed the benefits of every hospital in Chicago, and has successfully deceived every one of his many medical attendants. His favorite method is to simulate a dangerous fever, and he is able to raise his temperature to 103° or 104° and to set his pulse galloping at the rate of 120 to 130 to the minute. He can also develop all the symptoms of a wide range of illnesses in such a way as to completely deceive the doctors.

Another favorite plan of this *malade imaginaire* was to be found in the streets in an apparently dying condition as the result of an attempt at suicide. The cause of the rash act was abundantly clear from his delirious ravings, in which he would call for "Annie, the delight of my life." As the victim of unrequited affection he made a strong appeal to the sympathy of his nurses. Unfortunately, he was not as constant to "Annie" as to his scheme of imposition; and at various hospitals he called for so many different fair ones in his delirium—Marie, Lucille, Louise, and so on—that suspicion was aroused, and the hospital authorities were led to make inquiries and to compare notes. The result was that the pseudo-count was placed on their "black list," and he has had to seek a new field for the exercise of his novel arts.

Professional Secrets.

The *Medical Times and Hospital Gazette* says: "The question of professional secrecy is one which perpetually recurs in very different forms. There can be no doubt of the absolute necessity for inviolable secrecy as to matters made known to a doctor by a patient in the course of consultation. One cannot, of course, severely blame a doctor who deviates from his plain duty in this respect owing to fear of threats by those who administer the law; but at the same time we must admire those who decline at all risks to betray confidence reposed in them. To do as some suggest ought to be done, namely, to give information to the police of every crime (or what the law calls crime), which comes under medical notice professionally, would be as wrong in principle as it would be ruinous in practise. There are, however, cases in which secrecy would be sure to endanger either the patient or others, and here the doctor must, of course, undertake the responsibility attached of necessity to the information acquired. If a patient betrays to a doctor plain symptoms of homicidal or suicidal tendencies, it is an obvious duty to take suitable steps to guard against consequences, and no blame can be attached to a doctor who finds it desirable to convey the information to those who ought to have it. Again, if a patient is dangerously infective, a doctor, in the event of the patient refusing to take proper precaution for the safety of others, might under some circumstances be justified in warning those exposed to risk. The exceptions, however, should be very few. The fixed rule is absolute secrecy!"

Cyclists' Sore Throat.

After a "spin" along a more or less dusty road (*Lancet*, July 9) the cyclist sometimes experiences a dry and subsequently sore and inflamed throat. Headache and depression often follow, and the symptoms generally simulate poisoning of some kind. When the bacteriology of road dust is considered these effects are hardly to be wondered at. Hundreds of millions of bacteria according to the nature of the locality are found in a gramme weight of dust, and the species isolated have included well-known pathogenic organisms. Indeed, there can be no reason for doubting the infective power of dust when it is known that amongst the microbes encountered in it are the microbes of pus, malignant edema, tetanus, tubercle, and septicemia. The mischief to

riders as well as to pedestrians would probably be largely averted if, as Nature intended, the respirations were rigidly confined to the nasal passages and the mouth kept comfortably though firmly shut. As investigators have shown, the microbes in the air seldom pass beyond the extreme end of the nasal passage, and consequently never to the pharynx or bronchial surfaces. A useful precaution, therefore, in addition to exclusively breathing through the nostrils, would be to douche the nasal cavity after a dusty run or walk with a weak and slightly warm solution of some harmless antiseptic.

Florence's Test for Semen.

Professor Florence, of Lyons (*New York Medical Journal*), has made a discovery which he thinks may prove to be of considerable medico-legal importance, namely, that the addition of a strong aqueous solution of iodine (1.65 parts of iodine, 2.54 parts of potassium iodide, and enough distilled water to make 30 parts) to human semen gives rise to the immediate formation of dusky-brown microscopic crystals, partly long rhombic tables, and partly fine needles. C. Posner (*Berliner Klinische Wochenschrift*, 1897, No. 28; *Centralblatt für Innere Medicin*, 1898, No. 18) has succeeded not only in eliciting this reaction, but in determining that it is due to the combination of iodine with spermine. Hence it results that the reaction may be produced with any fluid containing spermine, and therefore is not absolutely a test for semen, although it is a valuable import as a corroborative test. This is Posner's opinion, but inasmuch as suspected seminal stains are practically never due to ovarian juice or other non-seminal fluids containing spermine, we are inclined to think that the Florence test will prove to be more valuable than he is ready to admit.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,

Microscopist to Harper Hospital, Detroit.

The Etiology of Syphilis.

Van Niessen, of Wiesbaden, gives the results of a vast amount of original work in a very exhaustive article in the *Centralblatt für Bakteriologie*, etc., Nos. 2 to 7 inclusive, 1898. His conclusions are: (1) Syphilis is a chronic infectious disease of the blood, and is transmitted to other tissues of the body by the lymphatics, through the latter system the contagium being first conveyed to the blood. (2) The contagium of syphilis in every case and in every stage of the disease from the moment of its entrance into the blood is demonstrable through staining and cultivation. In many cases it was found in the urine. It is also possible to find it in the milk, semen, saliva, sweat, and excrement. (3) In diseases other than syphilis, or where it is complicated with other diseases, the contagium cannot be found in the blood. (4) The cause of syphilis is a pleomorphous bacillus which is closely related to the higher organized fungi. (5) The detection of the syphilis germ in the blood is an absolutely sure criterion of the presence of syphilis, and is therefore of the greatest

diagnostic value in doubtful cases requiring differential diagnosis. (6) Syphilis in all stages is inheritable and communicable. This applies also to rabbits, which can be infected experimentally. (7) With the therapeutic measures known up to the present time, syphilis is absolutely incurable. Relative healing denotes only a latent state. Medical art, therefore, has yet to find a certain curative for syphilis.

New Apparatus for Controlling Oven Temperature.

F. G. Novy and Paul Murrill, of the University of Michigan, describe their new inventions for controlling the temperature of bacteriological incubators in the *Centralblatt f. Bakteriologie*, etc., of June 28, 1898.

Professor Novy's thermoregulator controls the temperature as well for high as for low temperatures. With the regulators now in use the amount of gas necessary to keep the flame going often gives off too much heat. Novy overcomes this as well as making the apparatus more stable by attaching the feeding tube to the main outer tube. But a thermoregulator will not work satisfactorily unless the gas pressure remains constant. To control the pressure Murrill has constructed an improved pressure regulator which is cheap and simple in construction. Its principle is not unlike a gasometer, so that as the tank rises or falls, due to changes in pressure, a connection from it to a cock in the pipe turns the gas on or off. The two regulators, when used in conjunction, do not permit the temperature to vary over $\frac{1}{10}$ degree centigrade.

Eosinophilic Cells in Tuberculous Sputum.

Teichmueller, in the *Centralblatt für Innere Medicin*, xix, 1898, gives his conclusions after examining 153 cases of tuberculous sputum. The general condition of the patient seems to govern the presence of the eosinophiles in the sputum. Their presence months before the bacilli could be found indicated an effort on the part of the organism against infection. After the bacilli appear the eosinophiles are greatly decreased in numbers or disappear entirely. They seem to indicate the progress of the disease. No eosinophiles could be found in forty-two cases, all of which had bad prognostic symptoms, as heredity, great initial progress of the disease, high temperature, complications, and particularly emaciation. He considers the examination of tuberculous sputum for eosinophiles is of great importance: (1) as an indication of the patient's power to combat the disease; (2) as to prognosis; and (3) as a regulator of therapeutic measures.

Endocarditis Acuta Gonorrheica.

Drs. Ghon and Schlagenhaufer report, in the *Wiener Klinische Wochenschrift*, No. 24, 1898, the autopsy of a girl eighteen years old with a clinical diagnosis of *gonorrhœa, endocarditis septica et gangræna pedis.* The autopsy confirmed the diagnosis and showed an embolus of the aortic arch as the cause of the gangrene. Large numbers of diplococci were found in the endocardial masses. Upon cultivation as well as inoculation of man they were proved to

be gonococci. Sections of the embolus revealed no bacteria. Inasmuch as the bacteriological examinations were conducted with the greatest care, leaving no chance for error, we see that the gonococcus can produce a septic endocarditis.

THERAPEUTICS.

Guajacetin and Eucasin.

Kubasta (*Medical Press*), of the Borough Hospital, Vienna, has been experimenting with guajacetin and eucasin since Oertel Schrötter and Goldmann drew attention to them as specifics in phthisis. Guajacetin, he tells us, does not possess that repulsive taste and smell its substitutes have, such as creosote, guajacol, creosotol, and guajacol carbonate, which are to be found in the secretion and excretions. It is also free from the irritant property the members of this group have on the mucous membrane of both stomach and bowels. Its antipyretic action is valuable in checking the night sweats, improving the appetite and general condition, as evidenced by a rapid increase in body weight. He records the details of eight cases of pulmonary phthisis, ten of chronic pulmonary catarrh, and two of severe pneumonia with pleuritic exudation in which excellent results had been obtained. In one case of hemoptysis the guajacetin acted as a most efficient hemostatic.

Eucasin is a drug, or rather a dietetic substance obtained from milk, for the general improvement of the metabolism. It contains ninety-five per cent. of albumen. It rapidly increases the body weight and is indicated in all wasting diseases, and from the readiness with which it is absorbed is useful in gastric complaints. It does not contain nuclein or extractives, and is thus suitable in the gouty diathesis, as it does not form uric acid or interfere with the elimination of the urates.

Calomel in the Treatment of Typhoid Fever.

Dr. Bittman, in an article in the *Cincinnati Lancet-Clinic* on the use of calomel in typhoid fever, reaches the following conclusions: (1) That calomel is an exceedingly valuable drug in the treatment of typhoid fever when directed against the seat of disease; (2) its use is free from danger; (3) it is best employed in small doses given hourly without interruption until all the symptoms of the disease are entirely controlled, or until sore gums warn us to discontinue its use; (4) large purgative doses may be indicated early in the disease, to abort or modify it, or any time to dissipate symptoms of profound toxemia; (5) the course of typhoid fever is greatly shortened by the systematic administration of calomel, and its graver features avoided.

Oleander.

In the *Indian Medical Record* of May 1 Assistant Surgeon H. D. Pant, of Gonda, reports a case of poisoning with the leaves of the oleander (*Nerium odorum*). A Mussulman coachman pounded seven leaves of the plant with water and sugar-candy, and drank the sherbet, having been advised by a quack to take it as a diuretic for gonorrhea. Severe vomiting set in, with

violent retching and slight pain in the stomach. The pulse was extremely slow, only 36 to the minute, and feeble. The man recovered in the course of a day or two. The author likens the action of oleander on the heart to that of digitalis, and suggests the use of a mild tincture on account of its rapid action and its sustained effect.

PEDIATRICS.

UNDER THE DIRECTION OF CHARLES G. JENNINGS, M.D.,
Professor of Practise of Medicine and Clinical Diseases of Children, Detroit College of Medicine.

The Effect of Different Foods upon Height and Weight.

Viewed from a medical standpoint (*Pediatrics*, July), increase of weight is no true criterion of an infant's healthy condition. A young child may be rickety, and in various other ways in an unsatisfactory state of health, and yet continue to put on flesh. As Dr. C. Voit, of Bavaria, points out: Increase of weight may be due simply to greater absorption of water by the body, or to mere addition of fat. Nevertheless the researches and conclusions of eminent scientific men as to the effects of different foods upon height and weight possess much value and interest. Quoting again from Professor Burk's article in the *American Journal of Psychology*, Malling-Hansen contends, and also appears to prove by accurate experiments, that different kinds of food have no direct influence upon growth, and ascribes all direct causes of acceleration to internal forces. Again, the effects of foods upon infants have been investigated by Russow in Oldenburg Hospital. Some infants were nourished exclusively at the breast and others were given a mixed diet. At fifteen days the average of the first class was 3564 grammes, and the last class 3525 grammes. At the end of the year the infants nourished exclusively at the breast weighed on the average 9930 grammes, and those on a mixed diet 8480 grammes, showing a difference of weight of 1450 grammes. The best nourished infants increased 150.7 per cent. of their weight at fifteen days, and those of the mixed diet 140.7 per cent. Cramerer shows that in the middle of the year breast-fed children were heavier, but concludes that whatever the nourishment during the first year, nevertheless all children at the end of the year reach about the same weight. Cramerer gives about fifty individual cases tabulating weights by weeks, and there is no evidence of the effects of differences of food, judging from the compared results at the end of the year. If anything, results favor artificial food. However, as we have said above, this evidence is of no value as proving that artificial food is better for an infant than mother's milk.

Infantile Scurvy.

There was a minority report on the part of the committee charged with the collective investigation of infantile scurvy. This was as follows: "(1) From a study of three hundred and seventy-nine cases of scurvy collected, and taking into consideration certain well known facts regarding the disease, scurvy

appears to be a chronic ptomaine poisoning due to the absorption of toxins. (2) It follows the prolonged use of improper food, and abnormal intestinal fermentation is a predisposing factor. (3) Sterilizing, pasteurizing, or cooking of milk food is not *per se* responsible for the scurvy condition. (4) A change of food and the administration of fruit juice and treatment of any underlying cause is the rational therapeutic procedure in scurvy."

Functional Activity of the Mammary Glands in an Infant.

Dr. J. B. Grover, of Beckville, Pa., in the *Medical Record*, reports the following case: "It is that of a female child, born January 28, 1898, having two unusually developed mammary glands (the nipples especially so), which secrete milk so abundantly that the mother is obliged to pump the milk out of both glands at least once daily. The child is fretful until this is accomplished. This secretion of milk began when the child was one week old. The mother pumped the milk out in my presence one morning, and the amount obtained was about two fluidrachms. Macroscopically it had the identical appearance of mother's milk; I did not examine it microscopically. The child is robust, and has the general appearance that healthy babies have at her age."

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT,
Attending Neurologist to Harper Hospital.

Cocaine Inebriety.

Dr. T. D. Crothers contributes an article in the May 28th number of the *Philadelphia Medical Journal* in which he says the use of cocaine for its effects has increased to such an extent that the *British Medical Journal* calls it the third great scourge of the world, alcohol and opium being the first and second. Inquiry indicates that its strictly medical use has not increased very rapidly, owing to its variable effects and its want of action on the nerves and cells. Hence it is clear that the increased demand represents its illegitimate use. This is sustained by the increased frequency of cocaine cases in hospitals, asylums, and courts of law. Cocaine takers are usually past thirty, and most of them have taken alcohol and opium for their effects before cocaine was used. Very few persons become cocaine takers without previous addiction to drugs of some kind. Persons of the tramp and low criminal classes who use this drug are increasing in many of the cities. The peculiarity of cocaine is that it produces apparently nothing at first but a slight degree of exaltation and sense of comfort and agreeable bodily activity. There is no mental confusion; the only symptom is good humor and general satisfaction. The hypnotic effects, when they appear, are not prominent, and there is no headache, nausea or confusion the next day. After a time the mental exaltation merges into slight hallucinations and delusions. The senses seem to be very acute and thought flows with great rapidity, and impressions of fear of danger begin, not sharply defined as in the delirium from alcohol, but vague and confused in

form and object. Later these increase and take on some form peculiar to the case. Thus in one case there are fears of contamination and disease, with skin hallucinations, or fears of intrigues and losses from others; or sudden intense delirium of love, hate or revenge. All this is associated with marked physical changes of the skin, hands, heart and digestion, with profuse swelling and attacks of dyspnea, often with tonic and clonic confusions and great feebleness, but the peculiar mental hallucinations and delusions of strength are marked in all cases.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D

Transillumination in Sinus Disease.

Dr. Chas. H. Knight, of New York, gives an interesting contribution to this subject. He makes no reference to the literature or history of the subject, confining his paper to his personal experiences. He attributes the prevailing skepticism on the subject to experiments conducted on the uncovered skull, which would naturally be misleading. The transmission of light may be obstructed not only by a thickened mucous membrane, but by various anomalies of the bones constituting the walls of the antrum, such as bony septa, exostoses, thickening or distortion of the bony wall. He does not regard the appearance of the patient's pupils, or the perception of light by the patient with closed eyes, as of much value, but regards the extent of light area in the antral region as the chief and important diagnostic feature.

In four cases of undoubted empyema, transillumination gave marked and characteristic results, and after operation all showed increased translucency as improvement progressed under treatment.

In five cases with suspicious histories there was inequality in the light area, in three of which the symptoms pointed to old unrecognized suppuration of the antrum.

In eighteen cases there was difference in the light area of the two sides without any symptoms whatever of antral disease.

In two cases of high arched palate and flat face, both antra were in absolute shadow.

In 171 cases no difference in the light area could be detected. One of these cases had an attack of acute inflammation of the antrum, while under observation, which responded graphically to the light test.

The writer regards evidence furnished by transillumination as corroborative rather than conclusive. It is not infallible, but surely has its place in adding to the certainty of diagnosis.—*Laryngoscope.*

Rheumatoid Attack as a Result of Injections of Antidiphtheritic Serum in a Case of Ozena.

Dr. Garnault, in *La Semaine Médicale*, reports a case as follows: A woman, aged thirty-seven, with a syphilitic history, had received no benefit from any of the usual methods of treatment. As a last resort she was given five success-

ive injections of five cubic centimeters each of antidiphtheritic serum. There at once occurred very severe pains in the limbs, fever with delirium, and a decidedly unfavorable general condition. These symptoms lasted for three weeks, without having the slightest influence upon the ozena. The writer considers this fact a new proof against the microbic nature of ozena.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

The Treatment of Conjunctival Affections by Argentamin.

Dr. Josef Imre (Budapest) has for a number of years been searching for a remedy which would combine the two important qualities of disinfection of the eye and the contraction of its vessels, while exerting a minimum of irritation, and which could be employed with ease in various forms. These two qualities are undoubtedly possessed by nitrate of silver, but in stronger solutions its irritating qualities are too pronounced, and its application is therefore restricted to once or twice a day. This, however, is insufficient for disinfection. Its acid reaction also is to be deprecated. Argentamin (ethylendiamin silver phosphate), on the other hand, differs from the silver nitrate in not forming a precipitate with fluids containing sodium chlorate. Experiments in Neisser's clinic have demonstrated that argentamin possesses greater disinfecting powers than nitrate of silver, and at the same time passes more deeply into the tissues.

Most cases are much more irritated by it in the beginning than by a nitrate of silver solution; suppuration, therefore, is increased. For irrigation a solution containing 1:5000 to 1:4000 was used. Imre has used argentamin in place of a one-half-per-cent. solution of nitrate of silver for half a year. He was surprised to find that a solution of 1:500, and later one of 1:100, produced absolutely no irritation, not as much even as cold water. He supposed that the solutions were too weak to produce any good results and tried a five-per-cent. solution, and soon came to the conclusion that it was unnecessary to dilute the argentamin with water. He observed also that argentamin was decomposed on the surface of the conjunctiva in the same manner that nitrate of silver was; a grayish deposit, however, was never produced, as happens with the latter; in other words, argentamin does not enter into combination with the albumen of the tissues. Argentamin was usually employed in the form of penciling, and in only a few cases as an irrigation, or as eye-drops. The following is a *résumé* of Imre's experience:

1. Applications with a brush of a solution, at the normal temperature, caused no hyperemia; the greater number of patients felt absolutely no burning sensation; in some, itching continued for ten minutes, especially in those whose conjunctivæ secreted abundantly.

2. The drug produces discoloration (on linen, fingers, face), as does the usual nitrate of silver solution.

3. Irrigation with water, after penciling, is unnecessary; it is, however, recommended to wash the first deposit off thoroughly, and repeat the painting a second time; the drug is then not decomposed, and has a more energetic action. Burning or itching is never noticed.

4. The results are at least as good as those obtained with a one- to two-per-cent. solution of silver nitrate. The astringent action is prompt and remarkable.

5. The painting may be repeated four or five times a day, without causing too great an irritation.

6. The remedy was employed in conjunctivitis, catarrhalis and blenorrhoica, and in trachoma; it was also well borne in corneal ulcer and iritis.

Imre received the impression that the hypertrophied tissues retrograded more rapidly than after the application of nitrate of silver, and that in recent cases of trachoma the follicles and deep infiltrations which become sclerotic after the use of nitrate of silver rapidly disappeared on the use of argentamin. It is recommended by Imre to all ophthalmologists.

Etiology of Acute Mastoiditis.

At a recent meeting of the New York Otological Society, Dr. Burnett spoke on the "Etiology of Acute Mastoiditis." He claims never having seen a case of acute mastoiditis following acute otitis media in which he has had charge of the treatment from the outset. He thinks it is not a necessary result, but an artificial one. In every case of acute otitis media we have a certain amount of inflammation of the aditus and antrum. We should not be too anxious to secure a cessation of the discharge. Between neglect and over-treatment, he would take neglect, in acute otitis media.

A New Mydriatic.

In the *Lancet* of July 2, 1898, Sydney Stephenson reports the results of his experiments with mydrin, which is a combination of ephedrin hydrochloride and homatropine hydrochlorate. The author has reached the conclusion that it was capable of doing all that had been claimed for it, namely, its capability of causing moderate dilatation of the pupils without involving the function of accommodation. He believes it to be a valuable agent in the hands not only of the ophthalmologist, but also of the physician desirous of examining the fundus oculi with a dilated pupil.

Sympathetic Ophthalmitis Occurring Long After Enucleation of the Fellow Eye for Injury.

Dr. George Ferdinands (*British Medical Journal*, June 18, 1898) reports two cases of sympathetic ophthalmitis remarkable for the length of time that elapsed between the enucleation of the fellow eye for injury and the development of the sympathetic trouble—in one case eighteen years, and in the other about twenty-one years. The interval in the latter case is without precedent.

THE MEDICAL AGE

VOL. XVI. DETROIT, AUGUST 25, 1898. No. 16.

ORIGINAL CONTRIBUTIONS.

PERNICIOUS VOMITING OF PREGNANCY.

BY G. W. HARRIS, M.D., MARSHALLTOWN, IA.

Among the various disorders of pregnancy that verge on the borderland of disease, none perhaps furnish a more constant source of annoyance to the physician than those reflex disturbances of the stomach that manifest themselves in the early months. Beginning often in the first week of gestation, and persisting until about the fourth month, they usually bid defiance to the ordinary methods of treatment aimed at their relief. In fact, the large number of remedies recommended by medical writers for the alleviation of this disorder is proof positive of their small value and uncertain action.

Fortunately, in a very large majority of cases the vomiting is well borne by the patient, and in her own good time Nature comes to the rescue and the gastric disturbance subsides. Occasionally, however, the condition persists and becomes progressively aggravated. The woman, deprived of all nourishment, emaciates, loses strength and courage, and almost before we are aware of it we find ourselves confronted with that most formidable of diseases—pernicious vomiting of pregnancy. It is at this stage of the difficulty that active interference for terminating the pregnancy first suggests itself to the physician. But even when the malady has assumed a grave form, the vomiting has been known to cease and gestation to proceed normally. Besides this the patient and relatives often shrink from the thought of operative measures and plead for less radical treatment, and so hoping against hope the physician too often temporizes and waits until the time to act has passed, and the patient sinks exhausted into the grave.

A recent narrow escape from just such an experience as this has prompted the writer to present this subject for consideration, and to enter a plea for active interference in pernicious vomiting of pregnancy. The case in question occurred at some distance from this city, and previous to coming under my care had been treated for several weeks by a local practitioner, who had evidently exhausted all his resources to no avail. The patient, a woman about forty, was in the third month of pregnancy; had been vomiting more or less for six weeks, and at the time of my first visit she had become so reduced as to be unable to sit up more than an hour or two each day. Recognizing the

gravity of the case I suggested to the patient and her husband the advisability of terminating the pregnancy at once, that being the only treatment which, in my judgment, gave promise of permanent relief. The husband readily assented to it, but the patient, apparently a woman of deep religious scruples, strenuously objected to becoming a party to what she persisted in regarding as a great moral wrong.

Being importuned to try some less objectionable measures, I finally yielded. Digital dilatation of the external os was undertaken, but the result, though slightly beneficial, was transient and unsatisfactory. I now enjoined strict rest in bed, the employment of rectal alimentation by means of peptonized milk, and for the vomiting, which was now bilious in character and very persistent, I had recourse to daily lavage by the stomach tube. About two quarts of boiled water, containing half a tablespoonful of soda bicarbonate, was employed at each washing, and after the return of the fluid a mixture of equal parts of the oils of cinnamon and cloves was sprayed into the stomach through the tube.

For a time the improvement which followed this treatment was marked. The attacks of vomiting became less frequent and severe. A considerable quantity of liquid nourishment was retained, and the patient gained in strength. For a while it looked as if another "infallible cure" for the vomiting of pregnancy had been devised, but in this I was doomed to disappointment. Improvement soon gave place to decline, and when I again visited her after an interval of a few days I found her condition worse than at any previous time. Again the necessity of active interference was urged, but even now, while half consenting, she still pleaded for more time, and yielding again to her wishes another valuable week was frittered away in useless waiting. My next visit was made in response to a telegram from her husband. Her condition had grown progressively worse and was now truly alarming. The retching and vomiting were now almost continuous, emaciation extreme, skin dry and scaly, pulse feeble and rapid. Exhausted and discouraged, she was now ready to consent to any form of treatment.

Using the necessary antiseptic precautions a sound was introduced into the uterus and a small quantity of amniotic fluid evacuated, after which an olive-tipped bougie was introduced and left *in situ* for twelve hours, when it was removed and the antiseptic douche repeated. No pains nor hemorrhage having resulted, the bougie was again introduced and allowed to remain sixteen hours without provoking the slightest action in the uterus. During all this time the retching and vomiting continued unabated, and the patient's small stock of strength was fast ebbing away. Determined to delay no longer, I now, aided by my associate in practise, proceeded forthwith to empty the uterus. After careful disinfection of our hands and genital tract of the patient, we commenced manual dilatation. The patient was not in condition to anesthetize, and the internal os, firmly contracted, yielded slowly, but by alternating we succeeded in the course of an hour in dilating it and extracting a dead fetus and the after-birth. And here let me venture an opinion which I believe statistics would verify, were they obtainable, and that is that in a very large majority of cases, when the disease has advanced to the third stage, the fetus

is dead. Granted that this view be correct, then the probability that such a condition exists should constitute a powerful plea for emptying the uterus at once, and thereby rescuing the woman from the perils of a fruitless delay.

Strange to say, no uterine contractions aided our efforts at delivery until the after-birth had been removed, when retraction took place, but not with sufficient promptness to prevent a considerable loss of blood. Prior to the operation and once during its progress stimulants in the form of brandy and strychnine were administered hypodermically, and the patient passed through the ordeal with considerable fortitude. She was now returned to bed, warmth applied to the extremities, and leaving her in charge of my partner, I returned to the city. An hour after my departure the patient's condition assumed a most grave and alarming aspect. The temporary exaltation of her enfeebled powers that had buoyed her up during the operation now gave place to profound depression. Following a second slight hemorrhage from the uterus, the temperature fell to 97°, the pulse became extremely rapid and feeble, the countenance blanched, the respirations shallow and sighing, and there was an ominous tendency to drowsiness that presages the onset of coma. Active stimulation was renewed at once. Hot-water bottles were placed at the feet and lower limbs; brandy and strychnine were repeated hypodermically, and following these the doctor had recourse to a procedure that had proved of service in hemorrhage of typhoid fever, viz., the subcutaneous transfusion of the normal salt solution. About two pints was injected under the skin of the pectoral region, and this was repeated later in the day. Under the combined influence of these measures the patient rallied, and with reaction established rectal enemata of milk and brandy were again employed and repeated from time to time. The vomiting recurred at intervals during the night, but was devoid of the retching, straining quality that had rendered the previous attacks so distressing. By the following morning there was marked improvement in the general condition of the patient, and during the day the stomach was enabled to retain a small quantity of liquid nourishment. The uterus, after the first few hours, caused us no trouble whatever, and aside from the daily use of an antiseptic douche and the employment of iodoform gauze and cotton to absorb the discharge, no treatment was required.

The vomiting gradually subsided, and by the third day the patient was able to retain sufficient liquid nourishment per stomach to render further rectal feeding unnecessary. From this time on improvement was continuous and uneventful. By the tenth day she was able to sit up, and could take solid food with relish.

In conclusion let me say there are certain methods of procedure which the experience of this and similar cases I have met with lead me to accept as safeguards in future emergencies that may arise: First, in cases of uncontrollable vomiting of pregnancy, where the woman's health begins to fail and emaciation becomes marked, insist on terminating the pregnancy, and failing to gain the consent of the patient and her friends, withdraw from the case at once. Second, where active interference is decided on in cases that come under treatment in the so-called third stage, do not waste time by the slower methods, but use rapid dilatation and empty the uterus at once. Third, after

emptying the uterus by this or any other method, always leave the patient in charge of a competent nurse or a physician, at least during the twenty-four hours immediately following. This is important since, as in the case just cited, the real crisis frequently follows immediately in the wake of the operation, and unless promptly met and effectually combated all our previous efforts will have been in vain.

TRACHEITIS AND CHRONIC BRONCHITIS.*

BY WADSWORTH WARREN, M.D., DETROIT, MICH.

In choosing a subject for this paper the writer has included the term tracheitis with a view to attracting attention to that most common form of subacute and chronic catarrhal bronchitis arising from simple extension of a morbid process in tissue essentially similar in character and function.

A large majority of such cases of catarrhal bronchitis are secondary to some affection of the upper respiratory tract. Very often hypertrophic nasal and naso-pharyngeal catarrh, hypertrophied faucial or pharyngeal tonsils, nasal stenosis from different causes, and repeated attacks of acute pharyngitis, furnish the starting-point for an inflammatory process that gradually passes below the larynx into the trachea and bronchi.

On account of certain histological conditions present in the larynx, the extension of an inflammatory process from the pharynx into the trachea may occur without any great disturbance in the larynx itself. For instance, while that portion of the larynx from the epiglottis down to the ventricle of Morgagni is lined with mucous membrane rather loose in texture, rich in mucous glands and full of loose trabecular spaces, as we approach the true vocal bands we find a more dense structure, the glands are diminished in size and number, blood-vessels are smaller and less numerous, and the mucous membrane is in close apposition with the perichondrial wall. A pharyngeal inflammation, then, could pass downward into the trachea, causing considerable disturbance in the upper portion of the larynx, a muffled, thickened voice, and abundant mucous secretion, but might pass the vocal bands without exciting great swelling or other signs beyond the slight hoarseness that accompanies any congestion of the true cords.

In the trachea and upper bronchi we meet practically the same conditions histologically that we find beneath the vocal cords in the larynx. In normal conditions it is a comparatively tough mucous membrane relatively poor in secreting glands and firmly adherent to the muscular and cartilaginous walls. In children under six years of age the mucous lining of the trachea and bronchi is sensitive, rich in glands, and may easily swell under inflammatory action so as to decidedly lessen the caliber of the tubes. There is a rich network of capillaries in the lining membrane of the bronchial tubes, which in children is loosely bound to the muscular walls and lies in folds. The epithelium is easily shed and readily proliferates. These tissues become more dense after six years. Again in the enfeebled state of extreme age the lessened vitality renders the mucous membrane susceptible to catarrhal inflammation.

*Read before the Wayne County Medical Society.

Hence we find the cases most severe and the mortality from bronchitis highest at the extremes of life.

Another factor influencing the frequency and severity of bronchitis is that of city life in contradistinction to country life. Bronchitis is essentially an urban disease. It is more common and more severe in England than in the United States, chiefly on account of the greater density of population. In our own lake region, too, the frequency and severity is much greater in the cities than in the villages. In Chicago, for instance, the rate per 1000 of cases of bronchitis is much higher than in any of the other portions of the State of Illinois. But bronchitis shows its greatest frequency and severity in the Atlantic coast region, notably in the New England States.

The course of a typical bronchitis may be described as similar to other classes of diseases of mucous surfaces. All acute catarrhal inflammations are apt to be accompanied by certain obstinate symptoms or show a tendency to relapse. In the case of bronchitis this is very common. Inveterate tendency to relapse or continued bronchial irritation with cough and expectoration following acute or subacute bronchitis usually ends in chronic bronchitis. Many cases, however, of chronic bronchitis are not of serious moment, only causing trouble through the winter or spring, or sometimes in the autumn in the lake regions after the cold rains and winds begin, but in the summer-time or in mild climates cease to give any annoyance.

After a few relapses have occurred, and in cases with a tendency to continued bronchial irritation, there is exacerbation of symptoms on the slightest exposure. A light draft on the back of the neck, an exposure to damp or moist atmosphere, a strong wind or cold rain, variation in ozone or sudden changes in temperature, may cause an increase in severity of the symptoms or the supervention of an acute attack. When this state of susceptibility is reached the least variations from hygienic rules and a quiet life, the slightest increase in the irritating properties of the atmosphere, and any change of clothing, will remind the patient of the lurking inflammation of the bronchial mucous membrane, which was neglected at the proper time when it might have been easy to effect a cure. Like gleet it will return upon the slightest variations from correct living. Eventually, however, the cough becomes permanent, milder in the summer, more annoying in the winter. It may be years after the cough becomes permanent before the strength and flesh of the patient begin to fail. Finally the prolonged and constant expectoration produces more waste than the natural processes of metabolism can repair. The heart, lungs and abdominal organs all feel the effect of the disturbance, and the disease in some of its manifestations begins to remind one of tuberculosis.

A word about the differential diagnosis. In pulmonary tuberculosis the determination by the microscope of the presence of the bacillus tuberculosis will settle that diagnostic feature conclusively. But at an early period much may be determined by the appearance, history, and physical signs. In phthisis there is emaciation from the beginning; in chronic bronchitis this ordinarily occurs very late. In phthisis the change involves wasting often of all the tissues connected with respiration before any respiratory changes can be

detected. In chronic bronchitis the respiratory changes are the first to be observed. The elongation of the neck due to sinking of the clavicles, the depression of the supra- and infraclavicular spaces are generally indicative of phthisis, and result from contraction of the pulmonary apices.

The smooth, silky appearance of the skin and the long blue veins of the tuberculous patient differ from the conditions in chronic bronchitis. In the latter, except in the later stages, the chest is full, clavicles elevated, neck shortened, chin drawn back, complexion often suffused, while the skin is dry, leathery, thickened, and easily drawn into non-elastic folds. Other points regarding chronic bronchitis are that it occurs chiefly in middle life and old age, there is absence of fever, the nose and ears are apt to be thickened, and the conjunctivæ edematous; while in phthisis contrary conditions usually hold. Phthisis is a disease of early and middle life, there is an elevation of temperature, the nose and ears are generally thin, with drawn skin, the muscles of the neck are wasted, and the conjunctivæ unusually brilliant.

The treatment of chronic bronchitis may be divided into climatic and medicinal, the medicinal into general and local.

Without going into specific descriptions of the resorts where cases of chronic bronchitis receive the most benefit, it may be stated in a general way that mildness, equability, and comparative dryness, with moderate elevation above sea level, are the factors of chief value. Bronchitic patients who have means and are able to change their place of abode may spend the warmer months of the year in this climate to good advantage, provided they can have the benefit of a milder region during February, March, and April. Speaking broadly, such patients are apt to secure the most benefit from a sojourn during these three months in the mountainous parts of Tennessee, the Carolinas, in the Gulf region, and the table-lands of the Southwest.

In regard to medicinal treatment, prophylaxis and the conscientious care of every acute attack will do much to prevent the acquirement of what we may term the bronchitic habit. Persons with any such tendency should be carefully instructed as to suitable care of the person in the matter of bathing and clothing. Discarding those treacherous contrivances known as "chest protectors," they should learn that a well groomed skin is of more value than any artificial apparatus. "God tempers the wind to the shorn lamb," and the chronic bronchitic by cold sponging and friction of the neck, chest and back can so temper his own skin as to be more or less indifferent to the character of the wind. Wool should be worn next the skin throughout the year, and the weight of such undergarments changed with great caution. Any source of irritation in the upper respiratory tract should receive suitable treatment, operative or otherwise.

In the way of internal medication we must bear in mind the chronic nature of the trouble and adapt our prescribing accordingly. We should seek, first, to modify the bronchial mucous membrane so as to alter the secretion and combat the congestion; second, we must facilitate expectoration; third, we must calm the cough; fourth, we should improve the general health of the patient by hygienic and other measures as already stated.

The balsamic preparations which after absorption are chiefly eliminated by

the respiratory surfaces are of much value, but it must be remembered that they often excite gastric disturbance and their use must be discontinued when they disturb digestion. To this class of remedies belong tar, tolu, benzoin, turpentine and turpene, eucalyptol, creosote, and copaiba. The latter is not much used in this connection on account of the damage its moral reputation has sustained, but it is nevertheless very efficacious. Opium in any form should be avoided in chronic bronchitis on account of the extreme danger that the patient may acquire a habit worse than the disease we are seeking to combat.

Lack of time precludes any discussion of the expectorants. We are, however, too prone to rely upon the stimulating expectorants that cause only an increase of an abnormal secretion. The best protection to an unhealthy bronchial mucous membrane is a normal flow of mucus.

Saenger in the *Centralblatt für Innere Medicin* has given a satisfactory report of the long-continued use of the liquid extract of hydrastis canadensis in chronic bronchitis. The writer has made a limited trial of this remedy and finds it of much value. It should be given in doses of twenty to thirty drops four times daily. It has an expectorant action and decidedly sedative effect upon the cough. Its sedative effect is slower than that of opium, but much more persistent.

The local treatment by inhalations, steam sprays and atomizers has generally been disappointing to all but its most enthusiastic, and possibly fanatic, advocates.

Of late, however, another form of local treatment, reasonable in theory, very practicable in application, and extremely gratifying in results, has come into vogue. I refer to intralaryngeal and intratracheal injections. For their application some skill is required in the use of the laryngoscope and a little training of the patient's larynx. The solutions which have proven of most service to me, and which are receiving most approval in recent reports in the journals, are combinations of alumnol, and preparations of oleum petrolati with menthol, eucalyptol, and the essential oils. As a result of this form of medication we get the direct effect of a local application of the remedy upon the local disease and avoid the gastric disturbance likely to arise from the use of the expectorants internally.

A COMPOUND COMMINUTED FRACTURE REDUCED AND WIRED.

BY A. ARTHUR MC LARTY, M.D.,
Surgeon, Mercy Hospital, Manistee, Mich.

The kind and severity of emergency cases of surgery is largely governed by the industries engaging the attention of the people of a certain locality, and probably nowhere in the regular vocations, except railroading, are there so many and such severe injuries as in the pine woods and neighboring lumber mills. The early practise, and one still too closely followed in severe injuries of the limbs, was amputation, but now the surgeon feels it incumbent upon him to save as many of the injured members as possible, and thanks to modern methods of treating wounds, he is largely successful.

I wish to call attention to a compound comminuted fracture of the right leg that is interesting chiefly from the peculiarity of its cause, its severity, and the good results of treatment.

On November 20, 1897, C. J. J——, aged thirty-five years, widower, was standing on the pile about fifteen feet from the ground to watch a swamp-hook governing a log that was nearing the top of the pile. The chain which elevated the log broke, and the end of the chain struck his right leg near the lower part of the middle third, breaking both bones. He states that though his leg was twisted far around, he did not fall until help arrived to remove him from his perilous position. He was removed a mile and a half, where his leg was roughly dressed, and then brought fourteen miles to town.

The accident occurred at 4 P.M., and I first saw him at 10 P.M. at a lumberman's boarding-house, where the facilities for attending such an injury were exceedingly poor. The fibula had broken at a slight angle and had nearly but not quite protruded through the skin. The ends of the tibia were showing through a large, ragged hole on the inner side of the leg, and a little palpation showed the tibia to be badly comminuted. I washed the wound as well as possible, dressed it with iodoform powder and gauze, placed the limb in temporary splints, and ordered the patient removed to the hospital, where I operated on it at nine o'clock the next morning After making the parts thoroughly aseptic, I proceeded to enlarge the wound to about four inches, extending along the inner border of the tibia. I found that the pointed ends of the tibia approached each other within about one-fourth inch, and in the angle formed by their approach was a V-shaped piece of bone three inches long, and also numerous smaller pieces of bone, many of which came away or were removed during the operation. On account of the previous twisting of the foot the fragments of bone were badly displaced, and the tendons and muscles drawn in between their ends. The fragments of the bones were released and replaced as far as practicable, and the approximating ends of the tibia were fastened together by silver wire. The large, V-shaped fragment of bone was fastened above and below to the adjacent ends of the tibia. Great care was taken to cover the repaired bone with periosteum. The fibula was exposed from the outside of the leg, and the ends also wired and covered with periosteum. Drainage was made completely through the leg with a soft-rubber tube, and the usual antiseptic dressings applied. Over these was made a plaster-of-Paris cast, according to a plan used by Dr. H. O. Walker, and so useful that I feel impelled to make more than ordinary mention.

The distinguishing part of this cast is two moderately curved straps of wrought iron carrying at each end a cross piece of perforated tin. After the plaster bandages have been partially applied these iron braces are applied to the front and back of the leg and the tin strips pressed down upon the foot below and incorporated firmly in the further wrappings of the bandage. The windows over the wound are cut in the usual way, and any weakening of the cast through this, or by absorption of liquids, is remedied by the iron braces.

The patient's temperature never rose above 99°. A few fragments of bone came away in subsequent dressings, but the bone united firmly with scarcely any shortening or deformity, and the patient was discharged June 9, 1898.

EXTRA-UTERINE PREGNANCY; OVARIAN ADENOMA; UTERINE FIBROMATA; VAGINAL HYSTERECTOMY BY BISECTING THE UTERUS.*

BY WILLIAM H. WATHEN, A.M., M.D., LL.D.,

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Case 1. — An extra-uterine pregnancy removed *per vaginam*, through an incision into Douglas' pouch. The patient was the wife of a physician near Dixon, Kentucky, and had borne two children previously. She had missed her period for six weeks, and since then had suffered pain in the right tubal region, and hemorrhage from the uterus, both being nearly continuous.

When the patient came to the city she had not lost enough blood to cause any well-marked change in her appearance, but enough to indicate internal hemorrhage. When an incision was made into the pouch of Douglas, about a pint of bloody serum and blood-clots was discharged. Adhesions of the omentum and the intestines were extensive to the uterus and both adnexa. The adhesions being all separated, the tube and ovary on the side of the extra-uterine pregnancy were brought down into the vagina and removed near the uterus. No rupture of the tube could be detected, and blood was issuing from its mouth or ampulla. An enlargement in the middle third of the tube was incised and exposed an extra-uterine pregnancy that had ruptured through the amnion and chorion into the outer third of the tube. The tissues surrounding the tube were very much thickened, and also the walls of the tube itself.

The case is, in my experience, unique in that the contents of the tube were not expelled into the broad ligament or the peritoneal cavity, except through rupture of the chorion and amnion toward the outer end of the tube, the blood going into the pelvis through the open mouth of the tube; hence there was no excessive bleeding, because there were no large vessels wounded. If there be a case of this kind reported, I have never read it.

Case 2.—This case is one of the most typical ovarian adenomata that I have removed or seen. There are a few large cysts, with the usual straw-colored fluid, but the mass of the tumor is composed of many adenomatous growths, some not larger than a grain of wheat, others gradually increasing in size until we get to the larger masses. Most of these adenomata are filled with a mucus-like substance.

The patient was forty years old, and excluding the tumor was otherwise healthy; she had lost probably twenty-five pounds of flesh within the last few months. The tumor was adherent to the sigmoid flexure of the colon and to its mesentery, and it became necessary to suture over a large raw surface of the mesentery to control the hemorrhage, and over a portion of the bowel to strengthen a weakened point; the omentum was extensively adherent, and when separated bled considerably and had to be ligated with catgut at several

* Reported to the Louisville Clinical Society.

points. The transverse colon was firmly adherent, and when separated there was a tear of the upper peritoneal attachment of the mesentery for two inches, exposing the arteries between the two peritoneal layers. This was sutured. Much of the substance of the tumor contaminated the abdominal cavity. This was carefully wiped away with sponges, and the cavity was not irrigated.

I have not irrigated after a celiotomy for a long while, and agree with most of the German authorities upon this subject, that irrigation of the abdominal or peritoneal cavity, as a rule, can do no good. I believe the best plan is to wipe out everything you can, then close the wound, Nature doing the balance. Nor do I introduce a drainage tube. I have not drained through the abdominal wall for a long time, and I will not so drain in any case where it can be avoided. I seldom drain at all unless it be through the vagina; then I make an opening through the posterior vaginal fornix. In fact, I now do nearly all my work for small tumors through the vagina, taking out pus tubes, extra-uterine pregnancies, etc., without removing the uterus.

Case 3.—This is an unfortunate one. Here two fibroid tumors, with the uterus, were removed a few weeks ago. The lady had been suffering for a number of years with various troubles. She was quite nervous, had a very feeble heart, diagnosticated by her physician, Dr. J. W. Irwin, as a heart with fatty degeneration. He kept her one month in the infirmary trying to get her heart strong so that she could have the operation performed, as her condition had become such that an operation was imperative.

The patient improved but little, and finally the operation was performed. Her urine was chemically and microscopically examined before and after the operation and was normal in quality. The operation was performed by the vagino-abdominal method, the vagina being incised and separated from the uterus, the uterine arteries controlled, and then the lower half of the broad ligaments divided. The bladder having been well separated from the uterus, the abdomen was then opened and the tumor removed, which was done in about seven or eight minutes. She had some shock from the operation, her heart beating rapidly, and not strong. Within an hour the heart had become fairly regular, but she secreted not exceeding three ounces of urine after the operation, and within from twenty-four to thirty-six hours showed marked symptoms of uremic coma. Finally she became unconscious, secreting no urine, and within forty-eight hours after the operation she died. The uremic coma, I think, resulted entirely from the fatty heart not being able to force enough blood through the kidneys to secrete urine.

Case 4.—Woman forty years of age, the mother of several children, and who has had several induced abortions. Her pelvis was filled with inflammatory exudations and with pus cavities; the uterus was almost immovably fixed, the pelvis containing a mass nearly as large as a fetal head.

The operation was performed *per vaginam* by incising the vagina and bisecting the uterus. After dissecting off the bladder and separating the adhesions to the intestines, omentum, etc., each side of the uterus was pulled down separately and a second clamp applied outside the tube and ovary. The woman had no trouble from the operation, and has had none since.

This is a perfectly bisected uterus, one side being about the same size as

the other, showing how perfectly the organ may be bisected. No one can appreciate the benefit to be derived from bisecting the uterus in performing hysterectomy until he has adopted and carried out this procedure. The introduction of this method is due almost entirely to the work of Segond, of Paris, whom I had the pleasure of being with two years ago and seeing operate in New York City.

In this case the bowel, the omentum, the tubes, the ovaries, etc., were extensively matted together, with sacs of pus everywhere in the pelvis; still nearly every adhesion could be seen and separated after the uterus was bisected; so that by bisecting the uterus, if there is a reasonably large vagina, in cases of pelvic abscesses or pus tubes where there are extensive adhesions, we can see much more of the work that we are doing than we can by the abdominal route. Hence the argument against vaginal hysterectomy, because of our inability to see what we are doing, thereby injuring the intestines, falls to the ground. I have never opened a bowel by separating adhesions *per vaginam*, and, as already stated, I do not now do one abdominal operation for pus tubes, extra-uterine pregnancy, or other conditions, where three or four years ago I did ten. I take out nearly all pus tubes through an incision into Douglas' pouch without removing the uterus. In the last three or four years I have operated many times for extra-uterine pregnancy through the vagina, and have never injured the bowel, nor had an untoward symptom.

Just here I want to emphasize one point: We are called to a case of extra-uterine pregnancy where the woman has bled so profusely because of intra-abdominal rupture that she is in profound shock; if we open the abdomen she will immediately die; she could not stand the shock of the operation. But if we control the hemorrhage and stimulate her by means of strychnine, etc., we may be able to do a laparotomy after a few hours, or a day. Now, the danger is that when we stimulate these cases and fill the vessels with liquid, the increased current of blood forces out the clot in the bleeding vessel; then our patient bleeds to death. But here we may illustrate the advantage of vaginal work. In these cases we may, sometimes without the use of an anesthetic, go quickly into Douglas' pouch, reach in with our fingers and catch the Fallopian tube that is ruptured, bring it down, and with an ordinary hemostatic forceps clamp the tube, and all hemorrhage is controlled; put gauze around the forceps as a means of protection, and let the case alone until the patient has been properly stimulated and gotten ready for the operation, when we may operate by the abdominal or vaginal route as may be indicated, with nearly universal good results.

THE Council of the British Medical Association resolved at its last meeting to found, as a memorial of the late Mr. Ernest Hart, a scholarship, to be called "The Ernest Hart Memorial Scholarship for Preventive Medicine." It was felt that no more fitting means could be found to commemorate at once Mr. Hart's great services to the British Medical Association and to the advancement of the study of preventive medicine. The scholarship, which will be of the annual value of £200, will be tenable for two years.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

ANIMALS' DISEASES AND MAN'S.

The fact that so many of the diseases affecting animals are communicated to man has largely been the means of bringing animal diseases within range of scientific attention. That so much is suffered in common makes animals the objects of scientific sympathy. If the measures of inspection recommended by the United States Department of Agriculture in their recent bulletin be generally adopted, many of the diseases derived solely from the lower animals, such as glanders, hydatid disease, trichinosis, and similar affections, are likely to be stamped out.

By consideration of the troubles that come to us from the animal world a proper respect is engendered for the general healthiness which happily prevails in the animal kingdom. Animals are, without doubt, frequently sick, oftener so than is commonly believed. Tuberculosis, it is known, is widely prevalent among domestic species, especially those used for flesh-food purposes. Koch's claim, however, of the unity of the tubercle bacillus in all animals has not been safely established. The disease is probably most common with animals which have come in touch with civilization, though it is not restricted to them. The domestic animals suffer many complaints, yet gratitude is due them that in their bills of mortality the principal cause of death must figure as violence due to the predatory instinct of man.

Among wild animals disease is probably rarer. Naturalists have never yet fairly answered the question: Of what do animals die? It has been conjectured that starvation is the principal cause, but it is doubtful if this cause is often epidemic. In the arctic regions, where life during the short summer is numbered by millions, and where there is a larger number of birds and large and small animals gathered together than in any other part of the globe, the remains of dead animals are said never to be found, notwithstanding the severity of the winter which is always at their heels. How these animals die is a mystery. In Spitzbergen it is said to be easier to find the vertebræ of a gigantic lizard of the Trias than the remains of a seal, walrus or bird which has met a natural death. Wild animals, however, do die. Tuberculosis, as a cause of death, is widely prevalent. Anthrax is a deadly and rapid cause of

death. Influenza is nearly always present and often epidemic. Animals may die of anything from malignant tumor to heart disease. Mr. George Fleming, in his interesting book on "Animal Plagues," enumerates eighty-six epidemics affecting wild quadrupeds and birds and twenty-seven affecting fish. There is, indeed, good reason to believe that epidemic disease is very prevalent among wild species, and that it is the usual cause of death among those who escape starvation.

EDITORIAL NOTES.

The Army Medical Department.

That some of the newspaper correspondents with our army in Cuba should have sent to their papers sensational accounts of the suffering of the sick and wounded troops, and should have made startling charges of incompetence and lack of foresight and provision on the part of the medical department, need occasion no general surprise. Such newsgatherers to make their reports acceptable must always color them with statements that exaggerate the facts. It is very unfortunate, however, that any reputable medical journal should publish an editorial criticism of the department based on the reports in the lay press. Such criticism at this early date before official reports are received is certainly ill-timed and unfair.

In Colonel Senn's last letter to the *Medical Record* he takes up this matter and explains some of the conditions which had to be met in the Santiago campaign. He pays high tribute to General Sternberg's ability, skill and indefatigable energy in conducting the affairs of the department. In regard to the unjust criticism of the lay press, he says, in part: "The complaint that the sick and wounded lacked medicine and dressing materials is true only to a certain extent. Some of the medicines were exhausted, owing to the unexpected enormous demand, but they were supplied as quickly as could be done under the existing circumstances. The writer had the privilege of operating in all the hospitals and was always able to find the essential antiseptics and dressing materials required in military practise, and this was at a time when the supplies were at the lowest. There was no lack at any time of stimulants and anesthetics. Immediately after the battle the bandage and blanket supplies were inadequate, but these defects were corrected promptly. War always has had its hardships and discomforts; it cannot be prosecuted in parlor-cars and club-houses. Our soldiers expected deprivation and unavoidable discomforts, but on the whole they were subjected to less actual suffering than they had reason to look for. To the credit of the medical officers it must be said that they shared the unavoidable hardships with the soldiers; lived on the same food, drank the same water, and made the moist ground their bed. It is a source of gratification to know that the complaints made against the medical department have come from newspaper correspondents and camp followers, more than from the soldiers themselves."

ITEMS AND NOTES.

THERE are more blind people among the Spaniards than any other European race.

A SCURVY infected vessel from Java a short time ago came into the harbor of New York.

THERE are under treatment at the German Hospital, Philadelphia, seven sailors ill with beriberi.

SIR RICHARD QUAIN'S successor as physician extraordinary to the Queen is Sir William Henry Broadbent.

A MEDICAL SOCIETY has been recently organized in Chicago termed the Chicago Society of Internal Medicine.

THE twenty-fourth annual meeting of the Mississippi Valley Medical Association will be held at Nashville, Tennessee, October 11 to 14.

THE University of Michigan comes into an estate valued at $125,000 by the will of Dr. Elizabeth H. Bates, of Port Chester, New York.

IT is stated by a writer of authority that the insipidity of boiled water may be removed by passing it when cold through a filter, by which it is aerated.

A MAN in Maine has offered a number of small prizes to the schoolchildren in his town who take the best care of their teeth during the summer vacation.

IT is reported that ex-Queen Liliuokalani, of the Sandwich Islands, who recently returned to Honolulu, is suffering from a malignant growth in the neck.

GENERAL LEONARD WOOD, who before the war was physician at the White House and recently colonel of the Rough Riders, has been appointed military governor of Santiago.

A BABY was born in a Newark hospital recently, whose weight at birth was forty ounces. The father and mother are Italians, aged respectively seventeen and sixteen years.

IN France it is a punishable offense for any one to give infants under one year any form of solid food unless such be ordered by a prescription written by a legally qualified medical man.

THE consumption of horse-flesh is rapidly on the increase in Paris, and as a consequence the authorities are considering the advisability of establishing a special slaughter-house for horses.

HENRY M. FLAGLER, the Standard Oil millionaire, will, it is alleged, build a hospital at Miami, Florida, for the Red Cross, to accommodate 1000 people. The cost of the building will be $40,000.

AFTER a long experience with typhoid patients, Dr. Ussery of St. Louis regards the banana as the best food for them. A banana is almost wholly absorbed by the stomach, easily digested, and very strengthening.

AT its last annual commencement the degree of doctor of laws was conferred by the University of Michigan upon Dr. A. Jacobi. So well merited was this honor that the University in bestowing it honored itself no less than Dr. Jacobi.

DR. N. S. DAVIS has resigned the office of dean of the Northwestern University Medical School (Chicago Medical College), with which he has been connected since its foundation, and of which he has been an executive officer since 1865.

DR. WILLIAM PEPPER, of Philadelphia, died on July 28. He was one of the most distinguished physicians and educators in this country, and for many years Provost of the University of Pennsylvania. He was in the fifty-fifth year of his age.

WHEN the cable first announced that Prince Bismarck was very seriously ill, it was stated, in confirmation of the report, that his diet for that day consisted of ham, caviare, eggs, beer, and champagne, but that he had foregone his favorite pickled pigs' feet.

TYPHOID FEVER is spreading in the Florida camps. The number of cases is not known definitely, but it has become so large that the army medical authorities have found it necessary to accept the services of the Red Cross nurses, which were at first refused.

THE Alvarenga Prize of the College of Physicians of Philadelphia for the year 1898 has been awarded to Dr. S. A. Knopf, of New York, for his essay entitled "Modern Prophylaxis of Pulmonary Tuberculosis, and its Treatment in Special Institutions and at Home."

OF all the countries in the world it is Servia which contains the most centenarians. Among its less than 1,300,000 inhabitants, there are actually 575 persons whose age exceeds 100 years. In little Switzerland there is not a single person whose years number five score.

THE Sultan's opinion of London surgeons is apparently not what it should be, for it is said that when he telegraphed his condolences at the time of the accident to the Prince of Wales, he offered as a special demonstration of his solicitude to send the Turkish surgeon, Djemal Pasha, to attend the Prince.

THE Municipal Council of Frejus, France, has voted a subscription of 1000 francs towards the erection, in his native city, of a monument to the memory

of the late Professor Grisolle, formerly professor of clinical medicine in the Faculty of Medicine of Paris, and president of the French Academy of Medicine.

Professor Marsh, of Yale University, after an extensive series of comparisons between the brains of ancient and modern animals and their relation to the human brain, has reached the conclusion that the Japanese are destined to come forward among the people of the earth as a great power, and perhaps an overwhelming force.

In a study of the mortality of persons engaged in the liquor traffic in Great Britain, it was found that the wives and daughters of spirit dealers were more liable to inebriety and death than those of persons engaged in other avocations. The mortality was even greater than among barmaids and women engaged in selling spirits.

The yellow fever at Santiago still continues in mild form, as far as can be learned from the meager reports sent by the sanitary authorities. The number of "fever cases" is reported as between three and four thousand, but most of them are of typhoid and malarial fevers. The deaths from all causes in the army numbered fifteen on August 1.

The Michigan State Board of Health has issued a warning against drinking the water from the Kalamazoo River owing to at least two deaths having resulted from that cause. It also points out that the bathing in streams that are affected by sewage is apt to prove dangerous, probably in consequence of the liability to swallow some of the water.

Two healers of men, each yearning for good works, met on the highway of a great city, and one forthwith said unto the other, "Art thou busy?" Whereupon he that was accosted replied, "Yea, verily." The father of lies, who was likewise passing that way, smiled and said thus unto himself, "Even so with me," and readily joined himself to each of them; and all went their way together.

The University of Edinburgh, on July 30, conferred the honorary degree of doctor of laws on a number of men who had been in attendance at the meeting of the British Medical Association, among whom were Drs. Henry P. Bowditch of Boston, William Osler of Baltimore, and Roddick of Montreal. The last named was president of the association at its meeting in Montreal last summer.

There is in London an institution known as the Free Home for the Dying. It is absolutely free, and the only passport to admission is a medical certificate to the effect that the applicant is believed to be dying. No distinction as to nationality, age, sex or creed is made. During the year 1897 forty-eight patients were admitted; of these thirty died, nine were discharged, and nine remained.

A physician wrote to a manufacturer of antitoxin, inquiring whether the syringe or the antitoxin was to be boiled before using. It need hardly be said

that boiling destroys the albuminous material, and yet the manufacturer writes to the *Philadelphia Medical Journal* that he has on hand something like thirteen dollars' worth of boiled antitoxin returned by physicians who gained wisdom by expensive experience.

PROFESSOR EMIL BEHRING has obtained a United States patent on the process of manufacturing diphtheria antitoxin, the result of six different attempts made by him to establish his claim in Washington. As the professor's claim to be the discoverer of antitoxin is questionable the courts will probably have to decide whether the United States shall pay him tribute.

A CHINESE gentleman advocates the use of the rat as an article of diet, and makes the following remarks on its properties as a hair restorer: "What the carrot is to a horse's coat a rat is to the human hair. Neither fact can be explained, but every horseman knows that a regimen of carrots will make his stud as smooth and lustrous as velvet, and the Chinese, especially women, know that rats used as food stop the falling out of hair and make the locks soft, silky, and beautiful. I have seen it tried many times, and every time it succeeded."

A DOCTOR in England had occasion lately (says *The Lancet*) to order for his patient an enema with an ounce of turpentine in it. He was assured by a female good Samaritan who was in the house that she knew quite well how to administer an enema, and as the apparatus was produced the medical man left without any misgivings. "Well," he said, on his next visit, "did you have the enema?" "Yes," said the patient, "but it was a business, and it did taste nasty." The enema had been given with the apparatus, but by way of the patient's throat.

A CORRESPONDENT of the *Sun* at Siboney described the results of certain experiments made by Major Legard, who is in charge of the hospital at that place, to determine the penetrating power of the bullets used on both sides in the fights that have taken place between the Spanish and American troops around Santiago. The bullet of a Mauser rifle of the patent of 1895 penetrated 32.5 inches of yellow pitch pine; the Mauser of 1896, 32.54 inches; and that of 1897, 35.125 inches. The Krag-Jorgensen of 1898 penetrated 26.125 inches, but the Springfield rifle could send a bullet only six inches through the same wood.

THE following is from the *West London Medical Journal* for July: The vast changes which have come over the scene, so far as wound treatment is concerned, within the past quarter of a century, may be illustrated by the following: Surgeon (1870): "Well, Mr. Jones, how's the woman with the amputated breast?" House Surgeon: "Doing exceedingly well, sir; the wound is suppurating nicely." Surgeon: "That's all right." Present day. Surgeon: "I suppose the amputated breast case is going on well." House Surgeon: "No sir, I'm sorry to say it's suppurating." Surgeon: "What ——! Who ——? Let me see it. Where's the dresser?"

Professor Virchow is announced to deliver the introductory lecture to students at the opening of the Autumn Medical Session at the Charing Cross Hospital. The great pathologist has chosen for his subject the simple but comprehensive one of "Recent Advances in Science and Their Bearing on Medicine and Surgery," and he will speak in English. He has doubtless been attracted to London by the title of the lecture that he has been asked to deliver, for the introductory lecture at Charing Cross Hospital is called the Huxley Lecture, in honor of the hospital's greatest student, and modern England's greatest scientist, the late Professor Thomas Huxley.

Algerian conjurers, it is known, are in the habit of applying hot metals to their bodies without suffering, and so can anybody if the metal is sufficiently hot. Apropos of this, an amusing story is told by Lord Playfair, of how, when the Prince of Wales was studying under him in Edinburgh, he had, after taking the precaution to make him wash his hands with ammonia, to get rid of any grease that might be on them, said: "Now, sir, if you have faith in science, you will plunge your right hand into that cauldron of boiling lead, and ladle it out into the cold water which is standing by." "Are you serious?" asked the pupil. "Perfectly," was the reply. "If you tell me to do it, I will," said the Prince. "I do tell you," rejoined Playfair, and the Prince immediately ladled out the burning liquid with perfect impunity.

According to an English weekly journal, when a Parisian doctor is called upon to attend a new patient, even though the case be a most urgent one, he first consults a book, fittingly bound in black, and if he finds the sick person's name recorded there, he declines to go, for in this "black book" is a list of the names of those who have received medical services, but who, though pecuniarily able, have refused to pay their doctor's bills. The book is issued by the great medical society of Paris, whose members have agreed to observe the rules which came into effect a short time ago. These rules provide that each physician should keep a careful record, which he shall forward to the office of the society at stated intervals, of the names of those whom he has attended who have refused to pay him his fee. Every reasonable effort should be made, however, to collect the bill, and only when the patient's bill has been paid will his name be erased from the list.

The sanitary condition at Santiago at the time of the city's surrender was about as bad as could be imagined. The city has always been, at its best, a fair sample of Spanish unsanitation, but after a two months' siege it was filthy beyond description. Heaps of ordure and decaying animal and vegetable refuse were everywhere, and the stench arising from them was enough to turn the Northern stomach. There is no sewerage system. The city drainage is all from the surface into the harbor, and the lower part of the city, through which much of the drainage runs, especially from the poor quarter around the bull ring to the northwest of the city, is the breeding center of malarial, typhoid, and other low fevers. There are four hospitals in the city—the Civil Hospital, presided over by the Sisters of Charity, and the Military, Mercedes and Conchas hospitals. In these four hospitals were 1747 patients. When

the notification of the proposed bombardment was received, every patient who could stagger out was driven into the streets. Among them were twenty lepers, who were in the Civil Hospital, and they are said to be still at large.

THE *Philadelphia Medical Journal* of July 16 says: "There are four good reasons why every physician and every other good man should wage persistent war against unnecessary noises: (1) Because in a certain and an increasing number of sensitive and 'well' people, such noises distinctly aid in carrying them over the easily-passed line between comparative health and the sick and the 'unfit for service,' thus surely increasing the sick rate; (2) because they decidedly destroy the vital and restorative powers of the sick, and thus greatly increase the death-rate; (3) because they dull and brutalize the nervous system of those who can and do learn to withstand their pathogenic influences; (4) because they serve to make the sensitive and cultured, who are able to do so, separate themselves in their search for quiet from the masses who must endure, thus serving to intensify the license of the noise-makers by lessening the check upon their crimes. The separation of the community into classes is exaggerated in this way, and these growing wider apart make impossible desirable helpfulness, sympathy and mutual understanding of each other. Noise is undemocratic; it should be un-American."

THE first qualified woman physician in Europe, as far as is known, was a young Athenian woman named Agnodice. In the year 300 B.C., says the *Journal of the American Medical Association*, she disguised herself as a man and began to attend the medical schools at Athens, which it was against the law for a woman to do. She afterwards practised among the women of Athens with extraordinary success. Her secret becoming known, she was prosecuted for studying and practising medicine illegally. The Athenian women, however, raised so furious an agitation in consequence that the case was dropped and the law repealed. Coming to later times, we find several women who obtained the degree of doctor of medicine and practised in Europe before 1492, especially in the Moorish universities of Spain. Trotula of Rugiero, in the eleventh century, had a European reputation and practised in Salerno. At the beginning of the fourteenth century Dorothea Bocchi not only received the degree of doctor but was professor of medicine in the University of Bologna. Since then two other women have been professors of medical subjects in the same university, Anna Mangolini (anatomy) and Dr. Maria delle Donne (obstetric medicine), the latter being appointed in 1799. In the year 1811 an edict was issued in France forbidding surgeons and female surgeons from practising until they had passed a satisfactory examination before the proper authorities. These female surgeons are again referred to in an edict in 1852.

NEW PUBLICATIONS.

CONSERVATIVE GYNECOLOGY AND ELECTRO-THERAPEUTICS.

Electricity in the treatment of the diseases of women is now so largely made use of that any assistance to its intelligent application will be gladly received by all who put faith in its remedial action. The author of this book has long heen known as the foremost advocate in this country of electro-therapeutics in the line of genesic disorders, and whatever opinion may be held regarding the utility of this particular agent, Dr. Massey's experience and continued investigation, often against odds and under adverse criticism, entitles him to the thanks of the profession and a respectful hearing. The third edition of this book is practically a new work, and is prohahly the best exponent of electric methods in the treatment of the diseases of women that has yet appeared. It is written in a style that carries conviction as to the author's thorough knowledge of the subject and his sincerity of purpose, and withal is entertaining reading. The book is embellished with a dozen well executed chromolithographs, besides many other admirable half-tone plates and figures. The full-page illustrations of the motor points, which have been especially prepared for this work, will be appreciated. Aside from the local treatment of women's affections, much desirable information is given regarding batteries, apparatus, and the production of the various currents in general use.

While differing in view from the author as to the reliability and desirability of the electric current in the treatment of many of the local affections of women, we have no hesitancy in acknowledging the excellence of this hook, and in cordially commending it to all those who have a larger faith in this method of treatment. The publishers' work is beyond criticism. W. P. M.

Conservative Gynecology and Electro-Therapeutics. A Practical Treatise on the Diseases of Women and Their Treatment by Electricity. Third Edition, revised, rewritten, and greatly enlarged. By G. Betton Massey, M.D., Physician to the Gynecic Department of Howard Hospital, Philadelphia; Late Electro-Therapeutist to the Infirmary for Nervous Diseases, Philadelphia; Fellow and ex-President of the American Electro-Therapeutic Association, of the Société Française d'Electrotherapie, of the American Medical Association, etc. Illustrated with twelve full-page original chromolithographic plates in twelve colors, numerous full-page original half-tone plates of photographs taken from Nature, and many other engravings in the text. Royal octavo; 400 pages. Extra cloth, beveled edges, $3.50 net. The F. A. Davis Co., 1914-16 Cherry St., Philadelphia; 117 W. Forty-second St., New York City; 9 Lakeside Building, 218-220 S. Clark St, Chicago, Ill.

SYSTEM OF DISEASES OF THE EYE.

The third volume of this masterful work is fully the equal of the first two volumes. The editors of the book, Drs. Norris and Oliver, are to be congratulated, and deserve the sincere thanks of the profession for presenting them with a "System of Diseases of the Eye" which has no equal in the English language. Its contributors, all men of note in the ophthalmic world, writing on subjects on which they are recognized as authorities, give the work an inestimahle value to those interested in ophthalmology. Priestley Smith's paper on Glaucoma is most valuahle, and his remarks as to the propriety of operating in simple chronic glaucoma—"My own experience, especially since I have adopted the addition of a scleral puncture (see page 680), is in favor of operating so long as the eye retains any sight worth saving"—will receive wide attention, as there is a great difference of opinion among the profession as to the management of these troublesome cases. The hook is richly supplied with full-page plates and text illustrations. R. W. G.

System of Diseases of the Eye. By American, British, Dutch, French, German and Spanish Authors. Edited by William F. Norris, A.M., M.D., and Chas. A. Oliver, A.M., MD., Philadelphia. Volume III.

LECTURES ON TUMORS.

These Lectures on Tumors have been before the profession for some years. This is a third edition of the work. The detailed description of the different classes of tumors is preceded by some remarks on the nature of neoplasms in general. The lectures having been originally extemporaneously delivered, they preserve much of their colloquial style.

Lectures on Tumors. By John B. Hamilton, M.D., LL.D., Professor of Surgery, Rush Medical College, Chicago. Third Edition. Twenty-one illustrations. P. Blakiston, Son & Co., 1898.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

A New Hemostatic Measure.

The chief difficulty in resection of the liver lies in the control of the profuse hemorrhage. While in circumscribed abscesses and in echinococci operations the bleeding is insignificant and cared for with ease, in resection of the liver there is severe hemorrhage difficult to control. It has been the custom to check the flow of blood in such operations by a combination of elastic bandaging, the use of the Paquelin, and tying off masses of the liver substance.

In this connection the method of air cauterization which Hollander of Berlin reported at the Moscow Congress is worthy of note. The same operator has published in the current *Deutsche Medicinische Wochenschrift* an account of a total extirpation of the gall-bladder and the cystic duct, together with a resection of the liver, for carcinoma, in which he used this hemostatic measure. An apparatus was constructed by means of which he could obtain superheated air at a temperature of 300° C., applying it through a tube of small caliber directly to the surface which he desired to cauterize. Without entering into the technical details of the operation, it may be said that the operation reported was successful, and the patient was doing well three months thereafter.

The writer claimed that air cauterization had several advantages over the use of steam as a hemostatic. With steam a dry eschar could not be obtained on account of condensation, its action could not be so readily circumscribed and concentrated, and on account of its expansile power it was likely to injure adjacent tissues; while with hot air the action of the heat could be circumscribed practically as well as with the Paquelin.

In conclusion the writer contends that this method has these advantages over other hemostatic measures in use heretofore: An accurate prevention of hemorrhage without a foregoing loss of blood, and greater safety against secondary hemorrhage; a more exact orientation of the anatomical relations determining whether one is operating in sound tissues or not, in contradistinction to the use of the Paquelin; less maltreating of the organ than occurs in bandaging the body of the organ, ligating masses, and perforating the substance; and finally, air cauterization leaves behind an antiseptic eschar which does not become detached, avoids the danger of catgut infection and the eventual destruction by heat of the substance of the organ adjacent to the cut surface.

Gunshot Wounds Made by Modern Missiles, and Their Treatment.

Roswell Park, in the *Buffalo Medical Journal* for August, 1898, says despite the fact that half the losses entailed upon the army in the military campaign are due to death from disease, the subject of gunshot wounds will

always possess for the surgeon a peculiar fascination, and a large degree of humanitarian interest. Gunshot wounds began to figure in the history of surgical literature about the latter part of the fourteenth or the early part of the fifteenth century. At this period Clemanus, of Venice, who appeared very largely in the surgery of his day, held nearly the view in which they are to-day regarded, *i.e.*, he did not consider them to be necessarily poisonous wounds, and treated them with warm oil bandages, in a rude way corresponding to our modern antiseptic occlusion. The horrible prevalence of erysipelas, tetanus and other infections under the old régime, the frightful mortality of the past, have not entirely disappeared as yet, but have been startlingly reduced by the new antiseptic measures. The majority of men now who are not necessarily fatally injured can be redeemed from the military cemeteries by the methods at present in use. Every gunshot wound is a resultant of the penetrative and lateral forces exerted by the projectile. In proportion to the resistance offered, the former is transformed into the latter. If the initial force or energy of the ball be completely expended in penetration, it will leave a clean track through the tissue, but if otherwise, not. The penetrative effect of a projectile is due: (1) to its hardness; (2) to its velocity; (3) to its size—the smaller, the more rapid; (4) to its weight; (5) to the softness of the tissue; (6) to the fluidity of contents of the part wounded. The lateral or so-called explosive effect of the bullet is due: (1) to the softness of the material; (2) to its velocity; (3) to its size or frontage; (4) to its weight; (5) to the rapidity of rotation; and (6) hardness of the tissue. In regard to the treatment of injuries inflicted by the bullets, the writer says it has taken many years of experience to educate men away from the idea that a ball is necessarily a poisonous substance, and that the very first indication is for its removal. This is a mistake which in time past wrought incalculable harm. The first indication in every wound of this character is the checking of hemorrhage; the second, so far as the surgery of the battle-field is concerned, is primary aseptic occlusion.

The Operative Treatment of Irreducible Subcutaneous Fractures.

Ransohoff, in a recent issue of the *Boston Medical and Surgical Journal*, states that his experience from what he has gleaned from literature does not warrant him in coming to conclusions that are final; nevertheless he believes that it would be justifiable to submit in a tentative way the following postulates: (1) The conversion of a simple fracture is justifiable when other means to secure the best results fail; (2) in fracture of the diaphysis, of the tibia, femur, humerus, and clavicle, in which insurmountable longitudinal displacement or axial rotation has taken place, immediate operation before definite union has occurred is indicated; (3) in epiphysial separations, when reduction cannot be otherwise effected, an early operation is justifiable; (4) fractures complicated with dislocation, irreducible by other methods, warrant operative interference; (5) the involvement of a joint, except probably in the case of knee and hip, does not *per se* militate against operation if it is otherwise indicated; (6) if extensive comminution is present, as in compression or crushed fracture, operation is contraindicated; (7) special precautions against

infection must be taken, in connection with which should be borne in mind the danger of too firmly closing a wound and the advantage of temporary tamponade and secondary suture; (8) reckless and indiscriminate resort to the operative relief of deformity in recent simple fracture is to be condemned, since there would be few fields of surgery in the event of an unsuccessful intervention in which the contrast could be greater between the good intended and the harm done.

MEDICINE.

Typewriter's Cramp.

F. Hampson Simpson (*Birmingham Medical Review*, March, 1898) records the following case of typewriter's cramp, consecutive to writer's cramp and other occupation neuroses: G. J——, aged thirty-three, correspondent clerk, is a man of good physique, but, according to his own statement, of a somewhat nervous temperament. He has been troubled from time to time during the past ten years with dyspeptic symptoms. In 1891 he contracted syphilis. He has no recollection of any other definite illness. He married in 1895, and has a healthy child. His family history is apparently excellent. At the age of eighteen he obtained a situation as clerk with a London firm. In this capacity he wrote on an average for seven to eight hours daily. In March, 1889 (*i.e.*, after about seven years of this work), he began to suffer from a crampy feeling in, and tendency to spasmodic fixation of, the right little finger. In three months all the fingers of the hand were invaded by the spasm, and the act of writing was seriously impaired. He was sent by his firm to the Paris Exhibition of 1889, where he had little writing to do, and there he learned to use the typewriter. When he returned to London six months later he employed this machine for all his correspondence. Occasional attempts to write, however, showed that the severity of his neurosis was in no way abated by the rest. About this time (1890) he learned to play the harp, but in a few months he noticed that after practising for an hour or so his right arm became heavy and weary. Subsequently he developed an actual cramp affecting the right hand generally, and more especially the first and third fingers. By the end of 1890 he was obliged to give up harp-playing. In 1892 he experienced similar spasms while playing the guitar, an instrument with which he had been familiar for ten years. From 1893 to 1895 he acted as interpreter on a transatlantic steamer; during 1896 he did little work. In January, 1897, he entered an office as typewriter, working only for two or three hours daily on the machine. At the end of February, towards the close of a day's typing, his right index-finger became bent by cramp. From this time onward a repetition of this spasm occurred each evening, a slight involuntary flexion at the wrist being superadded. In less than a month from the onset, exaggeration of the spasm, and the concomitant feeling of strain and fatigue, led him to substitute the middle for the index-finger. Six or seven days later that finger also became the seat of spasm. The patient then sought advice at the Salpêtrière in the clinique of Professor Raymond, where he came under Dr. Simpson's observation.

After describing the cramp induced by the act of writing, the author goes on to deal with that provoked by the use of the typewriter. The patient employed a No. 5 Remington. He had not troubled to learn the proper fingering, and used only the index-finger of each hand, thus not only increasing the work of the fingers, but rendering it practically continuous instead of intermittent. No effect had been produced on the left hand; in the right the cramp was of the nature of an involuntary exaggeration of the normal movement. After two or three hours' typing, the index (or the middle finger since its substitution) became fatigued, and to the flexion of the finger and wrist incident to striking the keys was added a spasmodic contraction which overflexed these parts. This cramp did not appear, however, to seriously impair the precision of his touch; it did not make him miss keys, nor cause the pressure on the keys to be unduly prolonged. In specimens of his work the imprints were fairly equable, and there was no piercing of the paper at punctuation marks by too heavy touch.

As regards other specialized movements, the patient occasionally cut himself when shaving the left side of his face, as a result of his right arm becoming stiff and rigid. The grip of the right hand was more powerful than the left. No weakness or wasting of any particular muscles could be detected. There were no sensory symptoms. At Dr. Simpson's suggestion the patient employed a small hammer for striking the keys. This afforded him much benefit for a time, but the cramp now affects the whole forearm, and he intends to abandon his present occupation.

The Treatment of Pneumonia by Digitalis.

M. Eustace, B.A., M.D., in the *British Medical Journal* of July 25, 1898, says that in Quetta during the winter months pneumonia is very prevalent among the native population, and without treatment very fatal; but he thinks that in digitalis we have a drug capable of saving the worst cases, provided it is administered in time and in sufficient quantity. He has been using this drug for over two years in the Mission Hospital with ever-increasing confidence, and always finds that where it has been given a fair chance its action is entirely beneficial. The ordinary dose used by him at present is thirty minims of the tincture every fourth hour, but he has given the same dose every hour or two in bad cases. He believes it to be better to increase the frequency of the administration than to increase the dose.

There is, the author ventures to think, an antagonism between the disease and the drug, as it is well tolerated. The temperature and the pulse are usually taken as a guide to the actual condition of the patient when making a prognosis of the case, but he is more inclined to pin his faith on the condition of the pulse, a very rapid pulse, even with a falling temperature, being a bad sign, while a slower pulse, even with a higher temperature, is satisfactory. During the administration of digitalis the pulse must be watched, not so much for fear of harm coming to the patient, but to see if the drug is doing its duty. For success the pulse must be slowed by the drug, and the dose must be increased till it is slowed. He believes that unless the dose given is sufficient

to slow the pulse the specific action of the drug does not take place. Again, the author does not like the combination of alcoholic stimulants with digitalis, as he believes they tend to inhibit its specific action, and is sure he gets better results by combining it with ammonia.

There is nothing to be feared as regards ill effects from the drug itself, and many cases after the crisis is past may be found to have a pulse of only 40, but they will express themselves as feeling well and comfortable.

The author has given up using large poultices, and finds that a rubber bottle filled with hot water meets the needs of the case.

The statistics work out quite in favor of the digitalis treatment and are good, considering that few patients come into hospital till after the fourth day. Of patients treated thus only one out of the last sixteen cases has been lost.

Heredity.

Dr. A. L. Benedict, in the *Medical Times* for July, 1898, in an article on heredity, says many of the so-called nervous and mental diseases show genuine marks of heredity, and it is significant that impressionability and general loss of nervous control are inherited rather than definite diseased conditions. Genuine anatomic anomalies are also hereditary in much the same way as physiologic defects of the nervous system. In these cases the hereditary taint usually affects only one or two members of a generation. If the family is afflicted generally, a few generations usually suffice to extinguish the trait, either with the family or by the superior strength of normal tendencies. In some cases hereditary taint, such as insanity, prevents the marriage of most of those actually afflicted and of the women of a family, while the unaffected males marry, bringing in healthy blood. By the law of crossed heredity, the neurotic taint would tend to be transmitted to female offspring, while the males would inherit largely from wholesome maternal stock. Thus, theoretically, the surname line would tend toward purification.

In summing up, the writer would emphasize the following beliefs: (1) Much of what is commonly ascribed to heredity should properly be credited to infection, environment, or even chance. (2) True heredity deals with general and acquired traits rather than with disease which is essentially foreign to the organism. (3) On account of the vast number of ancestors involved, the introduction of fresh blood by intermarriage, and the crossing of hereditary tendencies from one sex to another, there is, on the whole, a tendency to reversion to general characteristics and to purification from taints. (4) A disease to be hereditary must depend on some intrinsic physiologic or anatomic abnormality, and not essentially on infection. If it manifests itself before the period of reproduction, the tendency must disappear either with the destruction of the family or by the superior force of the normal tendencies. If it does not interfere with reproduction, it is still amenable to hygienic precautions. (5) The only intelligent knowledge of heredity must come from a close study of genealogy, carried on impartially and without the present unworthy incentives.

THERAPEUTICS.

The Therapeutic Value of Lactophenin.

Dr. Karl Sternberg, in the *St. Louis Medical and Surgical Journal*, says that it is not surprising that a new remedy introduced as an antineuralgic and antipyretic is nowadays received with a certain degree of incredulity by the medical profession. The number of such introductions has increased enormously of late, while only a few are permanently added to our materia medica. Lactophenin is a lactic acid derivative of paraphenetidin; hence a phenacetine in which the acetic acid bound to ammonia is replaced by lactic acid. The chemical formula of the product is:

$$C_6H_4\begin{cases}OC_2H_5\\ NH.CO{-}CH(OH){-}CH_3.\end{cases}$$

It is a crystalline, glistening, white powder, having a slightly bitter taste, and soluble with difficulty in saliva and pure water. One gramme lactophenin will dissolve in 300 cubic centimeters water, but more readily in ten cubic centimeters absolute alcohol, and the latter solution can be diluted to fifty and even to twenty-five per cent. without precipitating the lactophenin. It follows from these facts that it is most advisable to administer lactophenin in powder form in wafers (or capsules).

Prof. Dr. Schmiedeberg, of Strasburg, experimented with lactophenin on animals, concluding from the results that it, in common with other preparations of the antipyrin and phenacetine groups, induces a prompt reduction, especially of abnormally stimulated body temperature. At the same time it induces a condition of hypnosis, and a considerable reduction of pain; while in rabbits it is possible even to entirely suppress sensibility and motility and to depress reflex irritability to a minimum with lactophenin. Heart and lungs show no variations in their functions.

Lactophenin certainly exerts a calmative effect in a high degree; and Schmiedeberg compares this condition with urethane narcosis. The antipyretic effect is unusually prompt; and in this respect the drug is preferable to the cold pack, as the temperature is lowered in more comprehensive degree, and both patients and attendants prefer taking a simple powder to going through the complicated procedure of an ice pack. Among the various antipyretics lactophenin takes leading place, because it possesses the property, besides the antipyretic effect, of antineuralgic and hypnotic action, which is especially valuable in treating feverish and delirious diseases. As regards its effect in rheumatic conditions, the results were unfavorable; but a definite opinion cannot be given, as the number of cases observed was too small. At any rate, experience justifies the belief that in cases of rheumatism where salicylic acid is unsuccessful lactophenin should be preferably substituted.

With regard to dosage, Dr. Landowski mentions 0.6 gramme as medium, one gramme as maximum, and three grammes as daily dose; but experiment shows that generally one gramme will prove a safe average dose, and that two grammes single and five grammes daily dosage will not exceed the maximum permissible.

PEDIATRICS.

UNDER THE DIRECTION OF CHARLES G. JENNINGS, M.D.,
Professor of Practise of Medicine and Clinical Diseases of Children, Detroit College of Medicine.

Cholera Infantum: Its Cause and Treatment.

Doan, in *Pediatrics* of August 15, 1898, says that for the most part the diseases of the first two years of life are the acute infectious ones, and that cholera infantum is an acute milk infection. The perfectly normal man is proof against germs. He may swallow with impunity the cholera germ, the typhoid bacillus, or any other germ, so long as the alimentary canal is intact. The gastric juice of a healthy stomach is ordinarily able to destroy all germs that enter therein, while the bile acts as a safeguard for the intestines. So long as these protective agencies are in active operation, the body retains its ability to resist the attacks of the microbes. A normal infant is thus protected by its gastric juice from the ravages of germ life. It is true that the gastric secretion is scant, and its germicidal power is weak, but Nature does not intend for the infant to crowd the stomach or to fill it with food swarming with bacteria. No factor enters so largely into the causation of disease in infants as does excessive and improper feeding. It is evident from the severity of cholera infantum, the great wasting of the child, and its suddenness and fatality, that it is due to some dread poison or gastro-intestinal irritant. The bowel is found to swarm with bacteria, all of which are busy liberating their ptomaines, varying only in their intensity.

Acute or chronic intestinal indigestion may be given as an etiological factor in cholera infantum, but the author thinks that these troubles are as independent as tuberculosis and la grippe. It is a poison either introduced with food or liberated by chemical reaction within the alimentary canal. Factors favoring such are heat of summer, bottle-feeding, infectious milk, uncleanliness of bottle and nurses, and excessive and improper feeding. To recognize the trouble as an acute poisoning instead of a case of catarrhal inflammation will reduce the dreadful rate of mortality. To give calomel and then regulate the bowels was on the right plan—that is, to help Nature free the alimentary canal of the poison—but it is too slow. In fact, all cathartics are too slow, allowing too much time for the poison to be absorbed. We must act upon the idea that the toxic material exerts its influence by causing great depression of the heart and the system generally by acting on the nerve centers and by paralyzing the vasomotor nerves of the intestines. Taking this view we have the following indications to meet: (1) Assist Nature in emptying the stomach and bowels; (2) neutralize or overcome the effect of the poison on the heart and nervous system; (3) reduce the temperature. To do the first we must thoroughly irrigate the bowels and wash out the stomach with sterilized water. For the second indication nothing equals morphine and atropine in minute doses. For the third indication, the injection of normal salt solution. The frequent injection into the buttock in varying amounts has proven to be very useful. To reduce the fever phenacetine has been given, as well as the other coal-tar products, with good results. The diet for several days should be limited, of a bland and easily digested food.

Rötheln and its Treatment.

Blaschko (*Therap. Monatsh.; Pediatrics*, Aug. 15, 1898) says that the diagnosis of rötheln is to be made when a child, during an epidemic of measles, becomes slightly feverish and presents a reddish eruption accompanied by enlargement of the papilla of the integument, with absence of eye symptoms and of nasal and bronchial catarrh. When the general condition and the appetite do not suffer, the erythema after a few days becomes paler, the skin either desquamating not at all or only slightly, and particularly if the child has already passed through an attack of measles. Infection in the family is rare. As a rule, only isolated cases are found. Epidemics, as in scarlet fever and measles, very rarely occur, and then only in boarding-schools, orphan asylums, etc. Neither complications nor sequelæ have been observed in rötheln.

Treatment: The child should be kept in bed for a few days, put on a bland diet, allowed to leave the room only after eight days, and may again return to school after fourteen days.

Isolation in the family does not appear necessary. The brothers and sisters of the patient may be allowed to continue their attendance at school. After the disease has run its course, lukewarm ablutions and friction with moistened almond flour, at first lukewarm, then cold, may be ordered, to remove the scales, which are generally invisible, and also the germs of infection from the skin. In opposition to the view expressed by other authors that rötheln is a disease *sui generis*, Blaschko asserts that it should be considered as a mild form of measles only.

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT,
Attending Neurologist to Harper Hospital.

Locomotor Ataxia in its Modern Aspect.

Anything which tends to lessen the terrors of this disease ought to be most welcome. One of the most practical articles that we have seen is that by F. W. Landon in the *Medical Record* of January 8, 1898. After referring to the older views of the disease in question, he passes on to the modern aspect which must follow "the recognition of the neuron as the anatomical, physiological and pathological unit of the nervous system." He proposes "sensory neuron degeneration" as a name for the disease better suited than those in common use to indicate our present-day knowledge of its pathology and as more in accord with modern views, since no longer can the "scleroses" (excepting, perhaps, disseminated sclerosis) hold their former prominence as primary pathological processes. The old pathological picture must now give place to a new, in which sclerosis figures only as secondary to a primary sensory neuron degeneration, and it only then occurs as a "sequel of preceding death of nerve fibers; there is even some reason to believe it may never occur, provided the diagnosis is made early and the nutritional aspects of the treatment are recognized."

The author believes that "the actual destructive changes (parenchymatous

degeneration) always begin at the endings (arborizations) of the axis cylinders (neuraxons), these being farthest removed from their trophic centers (the neuron bodies in the spinal root ganglia)," and that "the destructive changes may remain limited to these regions for a variable time, during which the typical symptoms of tabes are present."

The aim of treatment, therefore, accepting this view, is, rationally, to arrest the degenerative process as fully and as promptly as possible, thus seeking to avoid any death of nerve fibers and the consequential sclerosis. To this end, diet, hygiene and rest will be the prime features of the modern treatment. Those drugs will be most useful which are of most assistance in building up an impaired nutrition, as iron, phosphorus, cod-liver oil, and tonics such as strychnine. Rest in bed, a liberal diet, and electro-therapy are all important factors. For the lightning pains, aluminum chloride (two to four grains in water) is recommended.

Patients treated on this plan have been under observation for nearly two years without relapse of pains or ataxia, and with full capacity for ordinary business affairs. Of the patients thus treated the author says all are improved.

The Breadth of the Psychiatric Specialty.

In a brief paper in the *American Journal of Insanity* for January, 1898, Dr. Theo. H. Kellogg pointedly establishes the fallacy of the trite and flippant criticisms of the alienists. He says in part: "The alienist must be well grounded in general medicine. He must be an adept in their management and fully understand the etiological bearings to mental disorders of sexual, cardiac, gastro-intestinal and pulmonary affections. Even a host of affections more especially known to gynecologists, ophthalmologists and other specialists must not escape his attention. The competent psychiatrist must also possess both general and special surgical knowledge, and must also lay a wide foundation of general anatomical and physiological knowledge. The clinical expertness of the physician who has devoted long years to the study of mental disease is remarkable, and even so incredible as to be denied by some professional men not possessing it. It has been propounded in open court that any one with common sense could tell whether a person was sane or insane. So gross is this error that in a doubtful case of insanity to be decided the opinion of an ignorant nurse having had years of observation in hospitals for the insane would be more reliable than that of the more intelligent professional man without any experience among the insane. The infinite variety and types in the clinical progression of mental diseases render the specialty practically inexhaustible."

The Establishment of a Department of Mental Diseases at the Boston Dispensary.

The January, 1898, number of the *American Journal of Insanity* speaks of the establishment of a department of mental diseases at the Boston Dispensary, with Dr. Walter Channing in charge and Dr. Arthur C. Jelly as assistant. It is established in the belief "that the department can be of considerable

service to the dispensary physicians and the friends of patients by giving them information in regard to the necessary steps to commit patients to hospitals. It will be the desire of the physicians of the new department to do what may be possible to bring about a clearer and more definite recognition of mental diseases before they become fully developed cases of insanity." This is so much "a consummation devoutly to be wished" that such a department ought to serve a useful purpose.

Similar departments are to be found at the St. Thomas Hospital, London, and at the Pennsylvania Hospital.

Cerebro-spinal Meningitis.

In the *Journal of the American Medical Association* of July 23, 1898, Dr. Peter Bassoe reports a case of cerebro-spinal meningitis, in which recovery followed upon lumbar puncture, the presence of the diplococcus intracellularis meningitis of Weichselbaum having been demonstrated in the fluid removed.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Hay-asthma.

In the current number of *Medicine* Dr. Barnhill, of Indianapolis, in an interesting article on this subject, gives a fair and unbiased *résumé* of the generally accepted theories regarding the disease, reports the results of treatment in twenty cases in his own practise, and quotes personal replies from various authorities to his inquiry regarding the efficiency of purely drug treatment. As now held by the majority of investigators, he advances the three following as causative factors of the disease: (1) The access of some irritant into the nose, conjunctiva, or retina; (2) a diseased nasal cavity; and (3) a nervous irritability or predisposition.

The first mentioned factor is pretty generally accepted. As to the second, intranasal disease or irritation, there yet exists some difference of opinion. The writer has never seen a well marked case of hay-asthma in which there was not unmistakable nasal disease, discoverable even in the intervals of the attacks. The third factor, nervous predisposition, is less easily investigated, but is known to exist. This neurotic condition is often inherited, but sometimes acquired. The infectious diseases of childhood are predisposing causes. No central or predisposing change is believed to have taken place in the nerve tissue beyond that which permits a too easy excitability. This excitability is wrought up to the asthmatic point by the local condition of peripheral irritation, and by the systemic condition induced by the circulation in the blood of some substance, as uric acid, which is irritating to the nervous tissue.

Results from purely drug treatment in the cases advanced by the writer, and reported by the authorities whom he quotes, were discouraging, and led to the conclusion that drugs alone seldom if ever cure the disease. The writer regards the surgical or other treatment of the nose for the eradication there of

sensitive pressure areas as the chief of prophylactic measures. He concludes from an analysis of his cases that where it is possible to remove or correct the oversensitive areas in the upper air tract, cure or great benefit may be confidently expected; that when such areas are due to causes comparatively inaccessible, as inflammation or necrosis of the ethmoid, or to great deformity or thickening of the septum high up, the prognosis is not good; that while constitutional, dietetic and hygienic measures are of great value, the most beneficial results are to be expected from the treatment which relieves the upper air tract of its hypersensitive pressure areas; and that the combination of these lines of treatment intelligently carried out offers the hay-asthmatic the best known prospect of cure.

Basedow's Disease.

The current *Internationalès Centralblatt für Laryngologie* furnishes a short review of various contributions to the literature of this subject from French sources.

De Grandmaison advances the theory that Basedow's disease is explained by a permanent irritation either of the vaso-dilator branches of the cervical sympathetic, or in the central nucleus of that nerve; in proof of which he offers: (1) the successful results of resection of the cervical sympathetic, obtained by Jaboulay, Abadie, Jonnesco, Gerard Marchant, and Reclus; (2) his own observations. Of thirty-two cases which he examined in the Hôpital Laennec, he determined profound nervous disturbances in nineteen instances, which almost invariably presented the picture of hysteria. As an objective sign, which he regards as pathognomonic, he mentions the asymmetry of the face due to contracture, which Charcot and Marie described under the name of hemispasmus glossolabialis.

Pítre cites a case terminating fatally in which diabetes mellitus complicated the morbus Basedowii. As in cases reported earlier by Sonques and G. Marinesco, he regarded the secondary diabetes as having a direct connection with the first trouble and not as an intercurrent malady.

Abadie repeats that the disease is due to an irritation from the brain center passing downward through the vaso-dilator branches of the sympathetic, and that resection of the cervical sympathetic is the only rational treatment. He believes the treatment by thyroid extracts to be helpful from a diagnostic standpoint in doubtful cases. If under treatment the condition grows worse, Basedow's disease is present, while if the condition improves the case is only one of simple goitre.

Péan states that the disease is not amenable to therapeutic measures. Of the operative procedures, exothyropexy and resection of the sympathetic still require further proof to establish their value. Thyroidectomy, however, has even in severe cases brought about numerous and permanent recoveries. With small, easily enucleated and non-vascular goitres the operation is simple; with a short, horizontal and vertical incision it is accomplished in a few minutes. In complicated cases one must tie off the vessels and remove the tumor piecemeal. Subsequent myxedema is rare and transient in character.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

Intermittent Exophthalmus and Enophthalmus.

In the *Deutsche Medicinische Wochenschrift* of June 2, 1898, Scheffels reports a peculiar case of a servant, twenty-one years old, without specific or other noteworthy history, who first noticed that her left eye became prominent after straining or bending forward, evidently caused by varicose dilatation of the vena ophthalmica. This increased, especially at the menstrual period, and was accompanied by discomfort in the head and a cloudiness before the eye. On standing erect, both eyes were quite normal. Pressure upon the jugular vein caused exophthalmus at once. The patient had not been in the habit of wearing tight collars or other constriction about the neck. The difficulty disappeared almost entirely after applications of cold water to the abdomen during the night, and the use of a tonic mixture. Scheffels has collected twenty-three cases from the literature, and divides them as to etiology into those of congenital, traumatic, and reflex origin, those of mechanical origin from pressure, and those of unknown origin. The prognosis is good, no unfavorable results having occurred in any of the cases, excepting in two that were complicated by other troubles.

Implantation of Sponge in the Orbit after Enucleation.

At the recent annual meeting of the American Ophthalmological Society, Dr. S. D. Risley, of Philadelphia, said that a fragment of surgeon's sponge, carefully sterilized, was pared down to a size just sufficient to fill loosely the cavity left by the removal of the globe and to permit the suturing of the conjunctiva and the subconjunctiva tissue over it without undue tension. The design was to furnish a framework for the deposition of connective tissue in the orbit and thus avoid the concave socket that usually follows enucleation. The effect produced was much the same as that presented after the insertion of a glass globe as in Mules' operation. Two or three months are required for the completion of the process of absorption of the sponge and the deposition of new tissue.

Premature Delivery to Preserve Sight.

At the thirty-fourth annual meeting of the American Ophthalmological Society, held at New London, Conn., July 20 and 21, 1898, Dr. A. E. Adams, of Newburg, reported two cases of albuminuric neuroretinitis occurring in pregnant women, with vision reduced to a very low point. Shortly after premature delivery the vision showed marked improvement, and Dr. Adams concludes that if abortion is ever justifiable, it is in these cases, especially as the uremic condition is dangerous to the life of the fetus, as well as a menace to the mother.

THE MEDICAL AGE

VOL. XVI. DETROIT, SEPTEMBER 10, 1898. No. 17.

ORIGINAL CONTRIBUTIONS.

AUTOINTOXICATION.

BY R. E. CONNIFF, M.D., SIOUX CITY, IOWA.

Autointoxication embraces such a wide field of pathology that to understand this element in the etiology of disease is practically to understand the whole science of medicine, because autotoxemia is an element in every pathological condition, and yet how little studied, how often ignored, because imperfectly understood.

Experiments have proved that the sense of fatigue is produced by poisoning of the cerebrum with the products of retrograde metamorphosis. Foster* has shown that the blood of a tired animal is poisoned, and when injected into another animal will produce all the phenomena of fatigue. The toxicity of the blood may be so great as to produce fatal results, as demonstrated by experimenters in rabbits hunted to death.† In muscular activity the products of waste are thrown into the circulation much more rapidly than in rest. To prevent self-poisoning, a corresponding activity of the eliminating functions is called for. If for any reason the organs whose office it is to destroy or excrete these poisonous substances are unable to eliminate them as rapidly as they are produced, the remainder is stored up to poison the blood, and through the blood the nerve centers. In the workings of all the various mechanisms of the body, whether digestive, renal, thermic, or whatever they may be, the nerve cell is the agent which generates the energy or nerve force by which impulses are started, controlled, or distributed, and any departure from its normal condition whereby the power to control functions is diminished or limited produces physiological toxemia.

We find in those unaccustomed to active exercise a sense of fatigue following enforced activity, either mental or physical, while he who is accustomed to daily exercise and who keeps the products of waste eliminated as rapidly as they are produced is far better able to stand violent or prolonged muscular or mental effort, for the reason he is not so quickly poisoned by the products of the tissue waste. During sleep the waste is not so great while the muscular system is in a state of rest, elimination is constantly going on, and a

*Foster's Lessons in Physiology.

†Dr. Bartour in *American Practitioner and News.*

large amount of effete material is in this way eliminated. On the other hand, a person long deprived of sleep becomes self-poisoned. The resulting drowsiness or fatigue—the accumulation of physiological poison—during working hours represents the amount of tissue waste over elimination.

Another source of autointoxication is found in altered or suspended functions of eliminating organs, as in cases of renal or cardiac insufficiency, occlusion of bile-ducts, chilling of the surface of the body, etc., which lessen the power of elimination and favor the storing up of effete matter.

Again, too much alimentation and not enough oxygenation may bring about certain abnormal conditions, as the various manifestations of uric acid, and result in autotoxemia.

Typhoid fever and similar conditions are now regarded as cases of septicemia or sapremia, the characteristic symptoms—nervous, pyretic, dystrophic, etc.—being all due to absorption of the toxins of the bacillus of Eberth or other bacilli, the intestinal lesions being incidental, and not essential, to the disease. The same may be said of tuberculosis and other diseases which are specific microbic forms of autoinfection.*

It is not my purpose, however, to treat of autointoxication in general, but to consider briefly its relation to the diseases of women, to help the gynecic surgeon to remember that women have other organs than uterus, tubes, and ovaries, and that other conditions may account for her loss of health, among which malnutrition, with consequent loss of functions, plays an important part.

Many of the symptoms usually associated with the neurosis are now believed to be the result of chronic poisoning and malnutrition of nerve centers, the effect of ptomaine absorption. Nervous exhaustion, nervous prostration or the condition known as neurasthenia are etiologically and pathologically considered cases of autotoxemia. The ptomaines or leucomaines absorbed from diseased surfaces may produce all the symptoms usually attributed to mental overstrain, sexual excesses, or other prodigal waste of nervous force.†

Goodell‡ said ten years ago that the crying medical error of the day was the mistaking of *nerve* diseases for *womb* diseases.

We well know the influence of fermentation, putrefaction and suboxidation of the contents of the intestines upon the nerve cell, and that nerve disease is the most common indication of autointoxication from the absorption of ptomaines and leucomaines. Constipation and its sequelæ, pelvic and uterine congestion, with disorders of digestion which follow, have a disastrous and far-reaching effect in causing neurasthenic symptoms, the direct effect of fecal poisoning. Excretions retained within the body ferment and decompose. The products of this decomposition, together with the products of tissue waste, are absorbed and impoverish the blood, cause malnutrition of nerve centers, and materially interfere with the functions of vital organs. A mischievous reciprocation takes place by which the cause and effect aid and abet one another.

**Medical Council*, May, 1896, p. 89.

† Dr. Boardman Reed in *American Association Journal*, July 11, 1896, p. 62.

‡ Goodell's Lessons in Gynecology, p. 554.

Take, for instance, the case of the liver—constipation makes it secrete less bile, and the resulting torpidity not only causes uterine and other congestions, but reenforces the habit of constipation. So in a measure with every other organ. Disorder of the blood leads to a morbid nutrition of the nerve centers, and these in turn still farther degrade the blood. Thus is evoked an exaltation of nervous action, which often becomes turbulent and uncontrollable. Hysteria, chlorosis and climacteric perturbations are always linked with defective hematosis.

According to Vaughan and Novy* certain groups of cells which we designate organs take upon themselves the task of doing some special work, the well-being of which is essential not only to the health of the individual group, but the whole body as well, for there exists a certain interdependence among the various organs.

Certain organs or cells supply the digestive juices. In these again there is a division of labor. The salivary glands supply the fluid which partially digests the starches; the peptic glands supply the gastric juice which does the preliminary work in the digestion of proteids; while the pancreatic secretion completes the digestion begun in the stomach, helps in the digestion of the starch acted upon by the salivary secretion, and does the special work of emulsifying fats.

Again, all these various processes may be performed in a normal manner, but should absorption for any reason be interfered with, defective or imperfect nutrition follows; or the fault may be still farther back in an imperfect assimilation, and disease is the result.

We have already briefly noticed the effects of non-elimination in producing abnormal conditions. Let us add this further thought: There are constantly formed within the body certain poisonous substances. Although one may eat proper food free from any impurity, drink nothing but pure water and breathe pure air, the metabolic change will produce effete or poisonous substances which must be properly and promptly eliminated, or disease is sure to follow.

Turck† has made a careful study of stomachic digestion. His investigations have thrown light on a subject hitherto little understood. I refer to the effect of saprophytic germs and their ptomaines in producing disorders of digestion. He has shown that the micro-organisms, acting as irritants, cause first an increased exudation upon the wall of the stomach by stimulating the glands to increased action of their normal secretion. In this secretion of tenacious, glue-like mucus is found gland cells, leucocytes, food detritus, etc. The effect of the micro-organisms upon the nerves of the stomach is to cause a lessening of its activity or motor power. This fact, together with the moisture, food, protection, even temperature found in the stomach, affords an ideal culture soil for the growth and multiplication of pathogenic micro-organisms. The hydrochloric acid of the gastric juice does not materially affect the growth and development of these germs, for the reason that the mucous beds in which they are found afford protection in the fact that the mucus not being easily soluble the hydrochloric acid does not reach the germs in the interior of

*Vaughan and Novy: Ptomaines and Leucomaines, p. 352.

†Dr. Fenton B. Turck in *Medical News*, April 4, 1896, p. 375.

the mass. The acid or other secretions are at first increased, owing to the irritation of the toxins in the colonies upon the stomach wall; as digestion goes on, fixed chlorides are formed, so after three or four hours no free hydrochloric acid is found in the stomach and nothing is present to check the growth of pathogenic germs. Through the growth of these micro-organisms and the consequent decomposition of food, toxins or poisons are produced, which not only act as local irritants, disturbing the normal functions of the stomach, but act as poisons to the blood, nerve cells, and other tissues as well.

Thus it is seen that any agent that disturbs or lessens the prophylactic properties of the gastric juice is an etiological factor in the production of autointoxication. The toxins produced in this way are taken up by the absorbents beneath the mass. As this goes on, from a temporary increase of functional activity, changes in the glands occur, which result in lessened secretion and permanent loss of function, to atrophy, dilatation, or other conditions, resulting in loss of digestive power. These changes in the mobility of the stomach, and the alterations in the gastric secretion from absorption of the products of fermentation and putrefaction, lead to other common symptoms attending this condition — intestinal colic and flatulency, constipation of an aggravated type, insomnia, mental disturbances and various functional derangements are to be attributed to this cause.

The effect of pathogenic micro-organisms is the same on all mucous surfaces. A striking example is found in the endometrium, where the irritation of the germ first stimulates the utricular glands to more active secretion of normal mucus, hence the increased catarrhal discharge. Should the toxin be sufficient to destroy a portion of the cells, the necrotic process is circumscribed or limited and surrounded by a zone of catarrhal inflammation and the secretion is muco-purulent. The secretion from the cervical portion is thick and tenacious and adheres closely to the mucous surface, filling the cervical canal and lessening the chances for proper drainage.

The lymph spaces in the glandular portion of the corporeal endometrium empty into those of the muscularis, and those of the muscularis in turn into the lymph vessels of the broad ligament, thereby favoring a systematic infection with all its attendant ills of impoverished blood, nerve starvation, and functional disturbances, and it matters not whether you call it nervous exhaustion, nervous prostration, or the more recent, and I think better, term, neurasthenia; it is dependent upon disturbances of glandular function and consequent malnutrition of nerve cell, the direct effect of ptomaine and leucomaine poisoning.

The time at my disposal will permit me to but touch on this important subject, and I will not attempt to present the different phases of autointoxication. If, however, these few remarks will lead to a better understanding of the intimate relations existing between autointoxication and the various functional disturbances due to malnutrition, my purpose will have been fully accomplished.

DISEASES OF THE SEMINAL VESICLES.*

BY FREDERICK W. ROBBINS, M.D., DETROIT, MICH.

I do not remember having heard the seminal vesicles mentioned in the Michigan State Medical Society, and it is because I have recently been impressed with two facts — first, that disease of these little organs is not uncommon, and secondly, that such disease is frequently overlooked — that your attention is called to this subject at this time. As the general practitioner of medicine is as likely to be called upon to make a diagnosis of such disease as is the man especially interested in genito-urinary work, I have asked to come before the medical section instead of that on surgery.

Many of our text-books refer only in the most cursory manner, if at all, to diseases of the seminal vesicles. This is particularly the case with nearly all works on general surgery. The best references to the subject I find in Paul Thorndike's article in Morrow's System of Genito-Urinary Diseases, etc.; White and Martin, Genito-Urinary and Venereal Diseases; E. L. Keys on the same subject; the monographs by Eugene Fuller in the *Journal of Cutaneous and Genito-Urinary Diseases;* and the recent excellent work of Nicholas Senn, Tuberculosis of the Genito-Urinary Organs.

The seminal vesicles are bodies loosely attached to the base of the bladder, usually to the outside of its corresponding vas deferens, with which it becomes united at an acute angle as it enters the prostate gland before passing into the prostatic sinus. They are when extended tubular in form, from four to eight inches long, with a number of sulci or tubular projections from the main axis. These long, irregular tubes are normally folded on themselves, are held in place by connective tissue, so that when in position they are about two inches long and pear-shaped. They are lined with columnar epithelium and contain tubular glands, and probably have the twofold function of secreting a considerable proportion of the seminal fluid as well as acting as a storehouse for testicular fluid. This latter point is disputed by some good authorities, who think that the spermatozoa are, for the most part, carried upward by the vermicular action of the vas deferens and become mixed with the secretion of the seminal vesicles in the common duct just before ejaculation. Many diseases may have their origin in the seminal vesicles, but their occurrence is seldom noted. Cysts of these vesicles have been operated on. Carcinomata have been recorded as having originated here, also one or two cases of sarcomata. Seminal colic is due to closure of the ducts by spermatic granules held together by mucus to form the sympexion of Robin. This colic is very painful, and comes on with or after ejaculation, at which act there is little or no seminal fluid discharge. I have never seen such a case, but the fact that they do exist, and not so very infrequently either, should make it incumbent upon us to always carefully examine the rectum for disease which might produce similar symptoms, and not be content, as many in their hurry are, I am persuaded, to diagnose neuralgia and treat it with a hypodermic of morphine. If colic does exist due to the cause mentioned, it is usually not difficult to pick up the mass with the finger and press it out.

* Read before the Michigan State Medical Society.

In health the seminal vesicles cannot usually be detected by the examining finger, but if diseased and the bladder is distended and the patient leans over a chair at right angles, or on a lounge takes the knee-chest position, the physician by pressing the bladder downward with one hand feels them with the other lying on the bladder back of the prostate gland. Although the diseased conditions of the seminal vesicles previously mentioned are rare, tuberculous and inflammatory conditions are rather common.

It is scarcely necessary to remark that inflammatory conditions or vesiculitis usually follow specific urethritis and may, as I have seen it, occur in either acute or chronic cases. I think Eugene Fuller calls attention to the fact that many acute cases are overlooked and recover spontaneously. One case occurs to me which came on during an attack of acute gonorrhea ushered in with chill and fever, but rapidly subsided after careful massage and a few intracystic irrigations.

Cases of chronic vesiculitis have been fully described by Fuller. Months or even years after the original infection the patient has at times seemed perfectly well, when suddenly there begins to be a discharge from the urethra as if from renewed infection. Such discharge often appears during chronic posterior urethritis where from any cause there is increased congestion, which is followed by purulent secretion and infection of the anterior urethra by contact. After a few days this discharge disappears under treatment, and the urethra (anterior and posterior) is carefully explored with sound and urethroscope for the seat of trouble, but the entire urethra looks perfectly normal—no inflamed glandular openings, no velvety patches denuded of epithelium, no sign of cicatricial contraction, or any other abnormal appearance. Now examine the rectum, and one or both seminal vesicles may be felt thickened and fluctuating. These vesicles may be diseased secondarily to a prostatitis, but often they are alone affected. If a patient has had epididymitis the query would at once arise if he has not also vesiculitis. Dr. Eugene Fuller was the first to advocate systematic milking of the vesicles with the finger, and reports many cases where at first seminal fluid was expressed in which were dead spermatozoa, but after a few weekly treatments the amount of fluid was lessened or disappeared and no dead spermatozoa were found. In several cases I have adopted this method of treatment with great satisfaction, but usually I have combined with it intracystic irrigation.

Within the last few weeks I have also seen a case which I diagnosed as tuberculosis of the seminal vesicles. This is not an uncommon disease, and probably as we get into the habit of making more careful examinations we shall find it more frequently. This patient had the following history:

F. R——, farmer, aged forty-one; married. Family history first-class. For three years has become easily wearied, especially in the summer; never had a venereal disease. In November last he began to urinate every hour or two, the act causing more or less pain. Shortly after this he noticed that a little blood was passed after each urination; then testis and epididymis became swollen on one side. After Christmas patient had a severe hemorrhage from the bladder, but has not had any since. Pus at time of examination was abundant in urine, but I could not find any tubercular bacilli. Testis,

epididymis and seminal vesicle were the seat of hard masses, and deep urethra was very sensitive. Cystoscopic examination showed no gross lesion like an ulcer, but the mucous membrane was congested, the radiating blood-vessels being very plainly seen, as is the case in catarrhal cystitis.

It is not often that tuberculous nodules are felt in the seminal vesicles alone; usually, as in this case, deposits are found in or around the testes and frequently in the prostate gland. The disease may have its origin in the generative organs or be secondary to a renal tuberculosis, and may or may not be associated with a general tuberculosis. Regarding diagnosis, it may be said that the bacilli are generally discoverable, but in many cases they cannot be demonstrated and we are obliged to trust to the history of the case and a physical examination for the diagnosis. One or more slowly growing hard nodular swellings coming on without evident cause, with secondary deposits along the vas deferens, epididymis, or testes, and nearly painless, are usually tubercular. It is not necessary that the general health should show evidence of failure, nor is it at all certain that the trouble is to be progressive and fatal. Local treatment is apt to prove a failure, and any instrumentation does harm rather than good. Only in a few cases has a surgical operation been done for the removal of tubercular vesicles, and the accepted teaching is to let the local troubles severely alone. On the other hand, it is very essential to do everything possible in the way of hygiene and internal medication to put the body in the best condition to resist the action of tubercular bacilli, that they may become inert or encysted.

THE DUST PROBLEM.

BY A. L. BENEDICT, M.D., BUFFALO.

For most parts of the United States, the dust problem is practically limited to cities and large towns. In the country dust may become annoying, and it is certainly the indication of a dryness which may prove disastrous to the farmers; but it is usually clean dirt, and even from the economic standpoint requires only that one wear gray clothes. In cities, dust is mainly composed of horse manure, mingled with sufficient coal dust or smoke to color it and to render the wearing of dark clothes advisable for the same economic reason that in the country lighter colors should be worn. This mixture of manure and fine particles of carbon is quite irritating to the mucous membranes of the nose and throat, and its bulk is astonishing. That the best city air contains much solid material is evident from the black mass deposited on a handkerchief from the first clearing of the nostrils in the morning. It is still more evident if one will take the trouble to tack a layer of cloth enclosing cotton across some window or the cold-air box of his furnace. The commercial side of the question is felt by every housekeeper who stops to estimate the cost of additional help and the ruining of valuable fabrics either directly by dust or by the friction of frequent washing.

The dissemination of horse manure and coal dust, however, is a very minor part of the sanitary damage done by city dust. Along with these materials

are various saprophytic bacteria and molds and, from expectoration and the like, pathogenic bacteria like the bacillus tuberculosis, the pneumococcus, the diphtheria bacillus, the germs of scarlet fever, measles, chicken-pox, rubeola, pertussis, etc. Accumulated dust also favors the development of flies, innocent of themselves in spite of their troublesome ubiquity, but well proved to be the media of communication of diseases from their fondness for expectoration and other discharges and any mass of foul material. It is doubtful whether sparrows, which we can scarcely imagine to exist except in the wake of a horse, are useful as scavengers or whether they also serve to breed disease.

Aside from improvement of sewerage and water systems, it is questionable whether any one urban improvement of modern times has had so far-reaching industrial and sanitary influence as the introduction of asphalt pavements. The saving of power, the lessening of damage to horses and vehicles, the institution of rapid and cheap transit by bicycles, are matched by the diminution to a minimum of soaking of filth into the soil, the diminution of the nervous wear and tear due to noise, and the hygienic possibilities of the bicycle. With the introduction of horseless vehicles, which now seems to be only a question of a few years in well-paved and fairly level cities, the great source of street dirt will be removed, and with the enforcement of ordinances requiring the consumption of smoke or the voluntary replacement of steam power by water-produced electric currents, the staining qualities of city dust will disappear.

Yet we must qualify this favorable statement by admitting that the use of smooth pavements presents several conflicting problems which prevent the easy abatement of the dust nuisance. From no street surface, unless we include a neglected and dry dirt road, is so much dust swept by the wind as from asphalt. If an attempt is made to hold the dust down by sprinkling, there is no possibility of the water being held by absorbent media as occurs when macadam or stone pavement is sprinkled, so that a foul slime is left, which not only favors the development of saprophytic germs but is a source of danger to horses and wheelmen, on account of the liability to slipping. If the asphalt is swept while dry, a cloud of dust is raised. Thus the only practical compromise is to sprinkle in jets just ahead of the sweeping machines, or, better but more expensive, to have the streets continually scraped by hand. All things considered, the latter expedient is preferable, except where absolutely impossible on account of the expense. In some cities it is also the custom to flush the main thoroughfares at night, so as not to interfere with traffic. It is obvious that there is no similarity between washing the streets with water from hydrants and merely sprinkling the dust into a pabulum for germs.

The problem of dust prevention involves two radical methods of solution: the source of the dirt may be removed or it may be kept out of the air. The latter solution, in a properly paved city, is narrowed down to the almost immediate removal of dirt into closed receptacles. It is obvious that so long as horses remain in general use—that is, till electric carriages become thoroughly practical and cheap—the great mass of street dirt will continue

unchanged. The mixture of coal dust, as such or as soot, is easily preventable by any city which has fairly efficient and honest officials. Smoke consumption is not only feasible but is a positive economy to manufacturers, as the value of the carbon lost in smoke will soon pay for the installation and maintenance of consumers. Smoke from private dwellings, small manufactories, etc., remains, for consumers cannot be applied to small fires except at relatively enormous expense. The ultimate relief of the nuisance is, however, in sight. Many parts of the country are so fortunate as to be within reach of natural gas, which, at twenty-five cents per thousand cubic feet, under pressure about three times that usually employed for illuminating gas, just about equals coal in cost, with a decided saving if the care of fires and removal of ashes must be considered as a direct expense. It is said that fuel gas can be manufactured at five cents per thousand feet—under what pressure is not stated.

The really poisonous ingredients of city dust must be prevented at whatever cost from entering the air. Fortunately, no cost is required save care and decency. Unfortunately, many of the average population count this cost as altogether too high. Rigid disinfection of discharges from all patients confined to their homes can be required, and in most instances can be enforced by boards of health, directly or with the cooperation of attending physicians. Spitting must be made an expensive luxury by legislation and enforcement of ordinances. Garbage and other readily decomposable material must be removed at frequent intervals at public expense. Nuisances must be abated, not by posting signs but by furnishing places where the calls of Nature can be heeded, conveniently and without expense. Finally, we would urge that the repair and cleaning of the highways are the proper directions in which the State or municipality can avail itself of the services of convicts.

SIGNIFICANCE OF VISUAL DISTURBANCES DURING NEPHRITIS.*

BY ADOLPH O. PFINGST, M D., LOUISVILLE, KY.

It is a well known fact that patients suffering from inflammation of the kidneys, particularly the chronic variety, are not infrequently the subjects of amblyopia or amaurosis in one or both eyes.

While it is not the desire of the general practitioner to make fine diagnoses of changes in the fundus of the eye, I believe that the consideration of disturbances of function of the eye occurring during Bright's disease will, particularly from a prognostic standpoint, interest the members of this society and elicit an instructive discussion.

The disturbance of vision in nephritis may be due either to poisonous products blunting the sensibility of the light-perceiving or light-conducting elements, or to pathological changes occurring in the tunics of the eye, recognizable with the ophthalmoscope. The former, or toxic amblyopia, may occur in any form of nephritis, although it is by far more frequent in the acute parenchymatous variety, especially after scarlet fever and during pregnancy.

The impairment of vision or actual blindness in acute uremia affects both

*Read before the Falls City Medical Society, Louisville, Ky.

eyes alike and develops rather suddenly, reaching its height in from thirty-six to forty-eight hours after its beginning. It is said exceptionally to come on so suddenly that the individual finds himself deprived of sight as by a flash. Although the vision may be reduced to a mere perception of light, or be lost entirely, the pupilary reflex usually remains undisturbed. Sometimes the pupils are both contracted, sometimes dilated. The defective vision is of transitory duration, the return to normal taking place in about twenty-four hours.

Preceding the visual complications the patient nearly always complains of headache, and sometimes of digestive disturbances, dizziness, stupor, convulsions, etc., by whose presence, along with the absence of changes in the fundus of the eye, the diagnosis of uremic amblyopia is made easy.

The examination of the fundus of the eye in uremic blindness reveals nothing pathological unless, of course, previous changes independent of the uremia should have taken place.

While the pathology of partial and total blindness in uremia is undetermined, the most accepted theory of a supersaturation of the blood with urinary ingredients (urea and extractive matter), which brings about a diseased condition of the visual center and sometimes the center for the pupilary reflex and destroys their power of receiving and generating force, seems a plausible one. It should always be looked upon as a grave symptom of Bright's disease, as an attack usually indicates the beginning of a fatal termination.

The treatment of uremic amaurosis should be carried out on the principles of uremia uncomplicated with blindness, viz., rest in bed, warmth over the region of the kidney, saline cathartics, and diaphoretics.

The amblyopia or amaurosis of nephritis resulting from pathological changes in the tunics of the eye occurs in the form of retinitis, which, from its association with albuminuria, has been designated "retinitis albuminurica." It has been variously estimated to occur in from ten to thirty per cent. of all cases of chronic nephritis, especially the interstitial variety. It is always associated with more or less inflammation of the optic nerves. Exceptionally it occurs in the acute nephritis of pregnancy or of scarlet fever. The retina and the optic nerve become inflamed, giving the disk, which is normally sharply defined and pink, a hyperemic, hazy appearance. The arteries are usually small and the veins large and tortuous. In rare cases there is marked papillitis (choked disk).

Soon after the beginning of the neuro-retinitis, sharply defined white spots appear in the fundus near the disk. These patches, which show a marked tendency to increase in size and number, conceal in part or entirely the retinal blood-vessels. Between the white spots dark red, hemorrhagic areas are often observed. These have a peculiar streaked appearance near the disk, which is supposed to be caused by blood in the nerve sheaths. Smaller white spots also appear in the region of the macula, where they take on a characteristic stellate formation. Small streaks made up of minute white specks radiate from the fovea centralis, which remains free. These small areas around the macula are supposed to be due to a fatty infiltration into the supporting fibers of Mueller. The larger areas previously mentioned are due to a fatty deposit in the granular layers of the retina.

The disturbance of vision in albuminuric retinitis varies in different cases, and in different stages of the same case. With but few exceptions both eyes are affected. There is often a striking lack of proportion between the loss of vision and the ophthalmoscopic appearance, extensive pathological changes being at times associated with but slight loss of vision, and *vice versa*. High degrees of amblyopia have been observed, but complete loss of vision is extremely rare. The defect of vision is insidious in its development, as the form of nephritis with which it is usually associated would suggest. The kidney trouble may advance to a late stage and the vision become quite defective before it is discovered. Owing to this slow development many cases in which the visual apparatus is affected run their course and end fatally, the patient never becoming aware of the complication. Frequently, also, the patients may notice the dulness of vision, but attribute it to "old age" or to a general indisposition, never thinking to associate it with the renal trouble. On the other hand the changes in the fundus of the eye have, time and time again, enabled the ophthalmologist to discover diseases of the kidney before either the patient or the medical attendant had suspected it. I do not say this as a reflection upon the medical attendant, for it is possible for the ocular changes to take place before albumen or other abnormalities appear in the urine, while all the symptoms of nephritis are so vague that they may be accounted for by other causes.

During the course of albuminuric retinitis blindness may develop suddenly from uremic poisoning or from a retinal hemorrhage involving the macula, the latter occurring, as a rule, only on one side. These hemorrhages which take place into the intergranular layers of the retina are often quite numerous and extensively scattered about the fundus (hemorrhagic retinitis). They may occur in nephritis without the appearance of the characteristic white patches.

The cause of hemorrhage into the retina can be readily appreciated if we stop to consider some of the pathological conditions of chronic Bright's disease. The arteries are, as we know, the seat of important changes; they are often sclerosed, thickened, and their course tortuous; the coats become infiltrated with new connective tissue and lime salts under the influence of the poisonous products circulating in the blood. The age at which chronic nephritis is most common (over forty years) would of itself suggest a more fragile condition of the vessels than in youth; added to this the heart, which has undergone compensatory hypertrophy in its endeavor to get blood through the compressed vessels of the kidneys, sends the blood into the exposed and brittle retinal vessels, and a rupture is the natural consequence.

The diagnosis of retinal changes can only be made with the ophthalmoscope, although a gradual diminution of vision in apparently normal eyes and the presence of albumen and casts in the urine would lead one to suspect the trouble. It may be mentioned that the ophthalmoscopic appearances similar to those of albuminuric retinitis may be occasionally found in leucemia, pernicious anemia, diabetes and lead poisoning independent of albuminuria. In these cases examination of the urine will clear up the diagnosis.

The prognosis with reference to visual acuity in albuminuric retinitis is not

altogether unfavorable. While improvement in the defective vision is rarely noted, complete and permanent blindness is exceptional. If the patient survives long enough amaurosis may result from atrophy of the optic nerve following neuritis. It may also result from detachment of the retina occurring coincidently with the retinal inflammation.

The appearance of retinal changes is always a serious complication, indicating an advanced stage of the renal affection, and danger to the life of the individual. Death may be expected to follow within a year. Life is rarely prolonged over that time, and "two years has by some been assigned as a limit of life after its recognition."

In acute nephritis accompanied by albuminuric retinitis vision has been known to return to normal after subsidence of the inflammation in the kidneys.

While it is known that there is an intimate connection between the kidneys and the retina, it is not known wherein this connection lies. Some authors (Michael) believe that the process in the kidneys and the retina is one and the same—an extensive pathological condition of the vessels. Most observers, however, adhere to the belief that the retinal changes are secondary to those of the kidneys—*i.e.*, that the uremic poison acts upon the nerve tissue of the eye.

The treatment of albuminuric retinitis must be governed by the form of nephritis which it accompanies. While the kidney disease (chronic) is usually beyond the stage where a cure can be expected, much can be done to comfort the patient. The nitrogenous foods should be diminished by substituting milk for meats. Alkaline mineral waters act beneficially; alcoholics should naturally be avoided; fresh air and light exercise encouraged; tonics are given by some.

It may be well to consider separately the treatment of those cases of Bright's retina occurring during pregnancy, to which special attention attaches, on account of the question of advisability of inducing premature labor. Vision has been reestablished more or less completely in these cases after an expectant treatment, whereas in a considerable number blindness resulted from atrophy of the nerve, retino-choroiditis, or detached retina. The danger of blindness increases with the duration of the inflammation. This has brought the weight of opinion in favor of bringing about premature labor if retinitis occurs early, say in the first five or six months, and to institute expectant treatment if occurring after that time, unless the changes are very extensive.

Professor Silex, of Berlin, who has studied this subject closely, advises "interference with pregnancy in *all* cases where retinitis is found."

A French statistician has discovered that in the sixteenth century the average duration of a doctor's life was only thirty-six and one-half years; in the seventeenth century it reached forty-five and two-thirds years, in the eighteenth century forty-nine and two-thirds years, and at the present time he finds it is fifty-six years. The same inquirer purposes to ascertain whether the average longevity of patients has increased in the same proportion.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

WHO IS TO BLAME?

The announcement of President McKinley's intention to institute a searching inquiry on the conduct of the last war will give much satisfaction to the medical profession. The aspersions cast upon the army medical department may or may not be just, but every medical man in the country will be anxious that criticism should be frankly offered, and all shortcoming and incompetence promptly revealed. An official investigation, without doubt, is urgently needed, that the blame for the inhuman treatment to which our troops were subjected may be placed where it is deserved.

That there is ample excuse for shortcomings in all departments of the army must be admitted by all fair-minded critics. It is easy to point out weak places and forget what has been actually accomplished. In the short space of three months the American arms have destroyed two fleets and annihilated the sea power of their adversaries. They have captured Manila and Santiago and taken thousands of prisoners. To do this an army had to be improvised out of raw, untrained men. These troops had to be instructed, and their officers were found little more accomplished in the arts of war than the staple of the army. The commissariat was acknowledged to be ludicrous, and transport service was non-existent. Is it therefore surprising that the medical department was found as "uncreate" as the rest of the machine? What won the fight was not perfect military organization, but the American spirit behind all the faulty equipment. The hands and brains of citizens accustomed to master details at short notice overcame all the "unpreparedness" of the departments.

How far all this may extenuate the blame for the apparently needless sufferings our brave soldiers have had to endure, from lack of due provision on field and in hospital, remains to be seen. There may have been no way to avoid the sending of transports loaded with soldiers but without surgeons or medicines, or the crowding of soldiers into ships unfit for human travel. Filthy quarters, bad food, and foul water may have been inevitable at the beginning of the campaign, but it would certainly seem that the brave men who had shown their readiness to sacrifice their lives for their country should have been returned to civilized life with better accommodations.

A taste for general damnation has doubtless prompted many to assail the medical department for these shortcomings. When the investigation has been completed the blame will most probably be found to rest elsewhere. Many competent observers and critics have suggested that the incompetence responsible for most of this trouble emanated from the Commissary Department. Let the investigation be full and far-reaching, that the medical department may be purged of the stigma which any suppression of facts can only increase.

EDITORIAL NOTES.

Intense Cold as a Destroyer of Microbes.

An English journal says that it is highly probable that microbes do not exist in polar regions and at great elevations. Most probably all of them are killed by intense cold. It is for this reason that frozen meat can be preserved fresh for an indefinite time. The fossil mammoths which have been discovered in the banks of Siberian rivers, embedded in ice, are often quite undecomposed, and their flesh is eaten by dogs. Professor Tyndall experimented on the vitality of microbes by exposing solutions of sugar to the air on the higher summits of the Alps, where he found that fermentation did not take place, whereas at lower levels, where the temperature was higher, the liquids quickly became turbid, owing to the presence of microbes. Dr. Nansen furnishes a confirmation of the truth of the above statements. He informed the writer that as soon as his companions returned to Norway after their sojourn in the extreme north they all caught cold, but had been entirely free from this ailment during their prolonged absence. The inference is that reproduction of the catarrh microbe had been prevented in the severe cold of the polar region. That cold, while representing activity, does not always kill pathogenic micro-organisms we know, since virulent typhoid bacilli have repeatedly been found in ice.

The Cinematograph as a Medical Instrument.

The uses of the cinematograph in medicine have not been as yet clearly established, but as pointed out in a recent article in the *Scientific American*, they are likely to be numerous. For the study of continuous or prolonged abnormal movements, the instrument may be readily available, and by its aid it will probably be possible to analyze the composition of the ambulatory defects of ataxics with the same degree of minuteness as the motions of the horse have been studied. Recently in London Dr. Parchen exhibited some unique results obtained in tabes dorsalis. The movements of chorea will also be found capable of being accurately recorded. It is quite possible that in the cinematograph will be found an instrument which will make precision a more common quality in sundry scientific observations and will be a necessity in the outfit of every hospital.

ITEMS AND NOTES.

WALDEYER has been made rector of the University of Berlin for the year 1898–9.

THE medical faculty of the Berlin University have chosen Prof. V. Leyden for dean.

THE Prince of Wales has made an uninterrupted recovery from his recent accident.

AT a recent meeting of the American Medical Association 711 papers were read.

FOREIGN universities are by an imperial decree to be established in the city of Pekin.

PROF. WILLIAM H. WELCH has resigned as dean of the Johns Hopkins Medical School.

IN Austria the sale of such sweetening substances as dulcin, crystallin, etc., has been forbidden to all except druggists.

FRÆULEIN DR. KATHARINA VAN TUSSHENBROEK has been appointed professor of gynecology in the University of Utrecht.

THE University of Paris has been endowed with sufficient funds to enable five of its professors to each take a trip around the world.

STETTIN, a city in Germany of about 40,000 inhabitants, has a death-rate of 40.1 per 1000, which is larger than any other city of that country.

Prof. Koch, the famous bacteriologist, is pursuing his study of malaria in the Milan hospitals and intends to spend several months in Italy.

THE Atlanta Medical College and the Southern Medical College have been consolidated under the name of the Atlanta College of Physicians and Surgeons.

IT has been stated that the Cuban insurgents dress wounds with dry salt or strong brine through lack of the usual antiseptics, and wounds from fire-arms heal under it in from four to five days.

TO REMOVE a foreign body from under the nail, a Parisian journal suggests that the nail be softened with the end of a match dipped in caustic potash and then scraped with a piece of glass until the object is reached.

BOTH the German Empress and the Empress Frederick contributed handsomely to the collection which was raised by the German Red Cross Society for aid to the sick and wounded in the Spanish-American War.

The Senate has recently passed a resolution preventing discrimination against graduates of legally chartered medical colleges in appointments to the medical calls of army, navy and marine hospital service.

At the last meeting of the Minnesota Legislature $10,000 was appropriated for the building of a hospital for the care and treatment of crippled and deformed children too poor to pay for proper medical attention.

The Prussian Minister of Finance, Herr Von Miguel, has proposed a plan for taxing professors of medicine who also practise. He thinks that any professor enjoying a practise worth $5000 per annum should receive no salary.

An English physician recommends the use of lemon juice as a hemostatic. He tells of two cases of severe nosebleed that were controlled at once by washing out the nostrils with a mixture of lemon juice and water, one to four.

A society calling itself the White Cross Mission has been recently organized in Oregon. It is similar in character to the Red Cross Society, and is making efforts to obtain permission of the War Department to begin its work of nursing at Manila.

A Philadelphia boy of nervous temperament has lain in a state of unconsciousness for a period of about forty-eight hours in St. Mary's Hospital. The case was evidently one of suspended animation and caused by excessive grief over the death of the boy's mother.

The United Kingdom consumes 600,000 pounds, or about 4,000,000 gallons, of tea every day, which is as much as is used by the rest of Europe, North and South America, Africa and Australia combined. What an immense number of "tea drunkards" must there be in England!

The foundation stone of the "Lung Sanatorium" which is to be built at Belzil, near Berlin, was laid on August 2 in presence of the chief members of the committee and many influential patrons. In support of the funds a public open-air fête was held on August 31 in one of the Berlin suburban parks.

The first meeting of the German Pathological Society, the president of which is Professor Rudolf Virchow, will take place in connection with the forthcoming Congress of German Naturalists and Medical Men. Professor Virchow has already sent out the invitations for September 18 to 25 at Düsseldorf-on-the-Rhine.

An amusing tale is told by a country doctor in England. He had been attending for a considerable period a parson, and according to custom, now fortunately becoming antiquated there, attending him *gratis*. When in due course the parson died, his widow wrote to inquire how much the doctor would allow her for the medicine bottles.

Russian women physicians may now occupy official positions in that country on the same footing with men, with the exception of promotions,

wearing uniforms and decorations. They do not lose their right to a pension if they marry, and their orphan children inherit it. In that country women have long been on an equality with men legally.

An employee of one of the underground trolley roads in New York City recently received a discharge of 2000 volts through his arms and was not killed. He was apparently instantly rendered unconscious, and when picked up was to all appearances dead, but soon revived and had only some severe burns on the hands to remind him of his carelessness.

The Russian Government recently sent out a commission to report on leprosy in Eastern Russia, where the disease has been prevalent for over 100 years and where it is confined to the southern and eastern parts of that country. They reported over 5000 in existence, and that the treatment of the disease in isolation hospitals had proved most successful.

Dr. Finchman, in the *American Photographer*, writing of the cinematograph, says: "Just as the discovery of the Roentgen rays first appealed to the wonder-loving public as a scientific curiosity and now is deemed an essential part of the armamentarium of every hospital, so in the future will the cinematograph be regarded as a necessity for the pictorial record of suitable cases."

Albumen artificially made out of certain coal-tar waste products has been discovered by Dr. Lilienfeld, of Vienna. He claims that it has all the properties of peptone, and that by means of it one can obtain albumen in sufficient quantity to support life at an expenditure of about eight cents a day. It occurs in the form of a brown powder and has a taste resembling egg-albumen.

Dr. Oliver, in his report on the French State match factories (*Lancet*, August 6), says that the rules governing these factories have to be read aloud on the first Saturday of every month. The rules enjoin that no food or drink be allowed in the workshop, but must be left in the dining-room, and before meals the working clothes must be left in the cloak-room, and the working people must wash their hands with the soft soap and water and must gargle their mouths with a gargle specially provided for that purpose. Then only are they allowed to eat. The same precautions are taken on their leaving the works. As a result of these precautions, among the 575 men and women employed at the two largest factories, there has not been a single case of phosphorous poisoning since they were enacted.

The German Dermatologic Association at its recent meeting concluded its discussion on gonorrhea with the recommendation that the young people of the community be warned of its gravity and the far-reaching results of infection. As prophylactic measures, instillations of silver nitrate or of twenty-per-cent. solution of protargol and glycerin immediately after coitus were advised, and especially the use of a condom. Neisser and others confirmed their previous indorsement of protargol as the most effective and least irritating of the silver salts, but for chronic cases the stronger argentamin is

desirable. For women Neisser prefers ichthyol and urethral pencils. The importance of commencing treatment as soon as possible after infection was strongly urged. Neisser and others consider matrimony allowable when repeated examination fails to show any gonococci, but a few take the ground that marriage is impossible as long as any urethritis persists.

The Lancet of July 16 prints an amusing example of the conversation that passed between the French statistical department anxious to obtain definite information on certain matters from the Turkish provinces. The Pasha of Damascus returned his list with the following answers:

Question: What is the death-rate per thousand in your principal city? Answer: In Damascus it is the will of Allah that all must die; some die old, some young.

Question: What is the annual number of births? Answer: We don't know; only God alone can say.

Question: Are the supplies of drinking water sufficient and of good quality? Answer: From the remotest period no one in Damascus has ever died of thirst.

Question: General remarks on the hygienic condition of your city. Answer: Since Allah sent us Mohammed his prophet to purge the world with fire and sword there has been a vast improvement. But there still remains much to do. Everywhere is opportunity to help and to reform. And now, my lamb of the West, cease your questioning, which can do no good either to you or to any one else. Man should not bother himself about matters which concern only God. Salem Aleikum!

The Lancet adds: It is clear that the doctrine held by the Christian that God helps those who help themselves finds no favor in the municipal government of Damascus.

THE following anecdote recently appeared in an English weekly: A Birmingham physician has had an amusing experience. The other day a somewhat distracted mother brought her daughter to see him. The girl was suffering from what is known among people as "general lowness." There was nothing much the matter with her, but she was pale and listless, and did not care about eating or doing anything. The doctor after due consultation prescribed for her a glass of claret three times a day with her meals. The mother was somewhat deaf, but apparently heard all he said, and bore off her daughter, determined to carry out the prescription to the very letter. In ten days' time they were back again, and the girl looked quite a different creature. She was rosy-cheeked, smiling, and the picture of health. The doctor congratulated himself upon the keen insight he had displayed in his diagnosis of the case. "I am glad to see that your daughter is so much better," he said. "Yes," exclaimed the excited and grateful mother; "thanks to you, doctor! She has eaten carrots three times a day since we were here, and sometimes oftener—and once or twice uncooked—and now look at her!"

ACCORDING to the *British Medical Journal* the first few years after the foundation of the Anticharbon Institute at Turin the number of tubes of anticharbon vaccine sent out was only 4000 to 5000 a year. Professor Pagliani, then Director of the Public Health, decided that the laboratory, which had been founded at Turin by Perroncito, should be removed to Rome. Immediately after this the production of vaccine greatly increased, and it was found possible to reduce its price. In the disorganization which overtook the Department of Public Health two years ago this laboratory came to grief;

fortunately, however, its work was taken up by the Sero-therapeutic Institute of Milan, from which the vaccine continues to be sent out under the supervision of Professor Airoldi, a former assistant of Perroncito. Now the yearly output of anticharbon vaccine amounts to 165,000 tubes. From May 1, 1897, to April 30, 1898, sufficient vaccine was sent out to inoculate 33,734 bovine and 98,792 ovine animals. Anthrax has greatly diminished in Italy in recent years; but, in spite of the large amount of anticharbon serum supplied, a good many cases still occur, both among animals and among men, in different parts of the country.

It was an Englishman who discovered how to produce liquid air, but an American has carried the investigation a bit further and now tells us how this discovery can be put to practical use, stating that in medicine and surgery its possibilities are vast. It is claimed that by means of this process air absolutely free from germs could be furnished in any amount, and if the stimulating effect of an excess of oxygen were desired it could be had without trouble quite free from the impurities which now make this gas so often objectionable. The temperature of hospital wards even in the tropics could readily be cooled to any degree prescribed by the physicans in charge, and by keeping the air about yellow-fever patients down to the freezing point, nurses would be perfectly protected against contagion and the recovery of the patients themselves facilitated. Again, the cauterizing cold which liquid air is capable of producing might be used in cases of cancer with great benefit as compared with nitrate of silver, since while it absolutely destroys the flesh to which it is applied, its action is perfectly under control and can be stopped in an instant. It is probable, also, that hay-fever, asthma, and even consumption, could be greatly relieved without change of climate by this pure, cool, germless air.

Fouquet (*Centralblatt für Chirurgie*, June 25, 1898) found upon the body of a priestess who was embalmed in the eleventh dynasty (about 3000 years B. C.) linear blue marks which he at first supposed were for ornament, but which he afterwards concluded were the result of some vigorous application of remedies. The marks were both above and below the umbilicus, those below running almost horizontally, while those above it ran in a vertical direction. The surgical measures were evidently taken a long time before the death of the woman, and were perhaps intended to cure her of some pelvic trouble, chronic pelvic peritonitis, or what not. This method of introducing drugs into the body is still practised in Egypt, and the writer was able to collect details of ninety-seven cases in which it was employed. In most of them the tattooing was done upon the temples for the relief of headache or neuralgia, but in other cases the scarification was made upon the hands, feet, shoulders, knees, buttocks, neck, or abdomen. The technique of this treatment is as follows: From three to seven needles, which are bound together in a bunch, are thrust obliquely into the skin. When blood begins to flow from the punctures thus made, a mixture of milk and soot, to which the juice of various plants has been added, is rubbed into the wounds.

NEW PUBLICATIONS.

ATLAS OF SURGERY.

Dr. Zuckerkandl's epitome of operative surgery is a work which all practitioners and students will find to be of the highest value. The operations of modern surgery are described lucidly and concisely, and the admirable illustrations form unfailing guides as to just what is intended by the surgical proceeding in question. The present number of the hand atlas series is likely to prove one of the most popular; it in every way comes up to the standard of excellence attained by previous numbers of the series.

Atlas and Epitome of Operative Surgery. By Dr. Otto Zuckerkandl, University of Vienna. Authorized Translation. Edited by J. Chalmers Da Costa, M.D. Twenty-four colored plates and 217 illustrations. Price, $3.00 net. Philadelphia: W. B. Saunders, 1898.

ATLAS OF SYPHILIS.

In previous numbers of this hand atlas series reference has been made to the thorough and artistic manner in which these manuals are compiled. Mraceks' Atlas of Syphilis proves no exception to the rule. Herr Schmitson has mastered, in a wonderful way, the problem of producing the clinical pictures. There is certainly no manual extant which places the lesions of syphilis so vividly before the reader. The text comprises the case reports which the aquarelles illustrate, and also a luminous exposition of the modern treatment of the disease. The manual will be found to meet all the needs of the American practitioner.

Atlas of Syphilis and the Venereal Diseases. By Prof. Franz Mraceks, of Vienna. Authorized Translation. Edited by L. Bolton Bangs, M.D. Seventy-one colored plates. Price, $3.50 net. Philadelphia: W. B. Saunders, 1898.

TROPICAL DISEASES.

In these days of universal travel a manual of tropical diseases is a manifest want. The volume here presented affords the reader an opportunity of familiarizing himself with Japanese river fever, nasha fever, kala-azer, sleeping sickness, ponos, pinta, piedra, and many other diseases he probably never before heard of. The tropical malarias are especially well described, and the diseases associated with animal parasites are given the attention to which their apparent frequency in warm climates doubtless entitles them. The book is a very interesting one, and will be found to supply pleasant diversion to the medical reader who may never expect to be called upon to minister to the victims of these maladies.

Tropical Diseases. A Manual of the Diseases of Warm Climates. By Patrick Manson, M.D., LL.D. (Aberd.), London. One volume of 625 pages, 12mo, illustrated by 88 wood engravings and two colored plates. Muslin, $3.50 net. New York: William Wood & Company.

ARMY HANDBOOK FOR THE HOSPITAL CORPS.

Among the books which will be received with more than ordinary interest at the present time is the handbook for the hospital corps of the army. The book contains a great deal of very useful information of special significance to the army surgeon. The matter of hospitals and hospital duties is fully canvassed. The sanitary care of camps occupies considerable space. The second part of the work contains an epitome of such portions of anatomy and physiology as are necessary for the hospital corps. The third part of the work discusses the special duties of the hospital corps. This not only comprises the proper treatment to be pursued in the events and accidents of the war field, but also such matters as camp cookery and other kindred subjects. The work is very clearly written and is in every way suitable for the purposes for which it is compiled.

Handbook for the Hospital Corps of the U. S. Army and State Military Forces. By Charles Smart, Deputy Surgeon-General, U. S. A. Approved by the Surgeon-General of the Army. Price $2.25 net. New York: William Wood & Company, 1898.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Wet Dressings in Surgery.

Dr. Thomas O. Summers, in the *Journal of the American Medical Association* of August 13, 1898, in an article on the value of wet dressings in surgery, says that in the process of repair all the structural elements must be supplied from beneath the surface of the lesions so that the constructive metabolism would not be injured by the mechanical interference of the oil globules which would "cripple the proliferation of bacteria," which comes from without. There are many wet dressings which if frequently renewed would show excellent results, but there are few cases which come before us in which disturbance of dressing does not do mechanical injury to the process of repair, besides exposing the wound to the entrance of pyogenic and other cocci while the dressing is being changed, while the retention of material which has expended its aseptic influence is a constant menace to the integrity of the organism at large. Lister was working to the overcoming of these difficulties when he devised his "paste" dressing, which however failed to meet the desired ends in many cases. The use of animal and vegetal oils is also open to the objection offered to solutions in dressings—the necessity of changing the dressings too often—but for a different reason, the tendency of the oils to become rancid; and this applies also to the keeping of such dressings prepared for use. Wyeth recommends in his oil and balsam dressing the sterilization of the oil before using, but admits that this is often impracticable, and recommends in this case the use of the plain, cold castor oil of the shops.

It is therefore clear that to carry out the idea of a practical dressing it must be:

1. Antiseptic. This applies not only to the effect of the application to the part affected, but to the corporate substance itself, this insuring it against autoinfection before applying.

2. Permanent. This is necessary in order to avoid too frequent removals as well as to preserve itself from deterioration.

3. Non-irritating. There is nothing more delicate, more easily disturbed, than the formative principles of tissue, so that care must be taken in the dressing of all lesions of surface lest the agents used should arrest the tender process of repair, as well as protect it from the invasion of destructive germs.

4. Constructive. While the majority of lesions, especially those of traumatic origin, if not interfered with by destructive germs, will heal rapidly of themselves, there are very many which require not only this negative condition but also a positive stimulation of function in the constructive elements of the part. Stimulation of cell growth, however, must not go to the extent of irritation, in which case there will be destruction instead of construction of tissue.

Conservatism in the Use of the Stomach Tube

Benedict, in the *American Medico-Surgical Bulletin* of June 25, 1898, concludes his article as follows:

1. Don't use the stomach tube simply because you want to be considered scientific and up to date.

2. Don't withdraw stomach contents for examination unless you are prepared to examine them.

3. Don't discard external means of physical diagnosis because you have a stomach tube.

4. Don't expect too much from diaphanes, electric buzzers, buckets, complicated tubes, etc. All of these have their uses, but are available in very rare cases.

5. Don't pass the tube without first examining the mouth and throat, and also the heart and arteries, and at least inquiring as to pregnancy, piles, and other possible complications.

6. Don't pass the tube as a means of treatment unless you know precisely what you wish to accomplish with it.

7. Don't introduce a weight and bulk of water which you would consider injurious if swallowed. As a rule don't introduce more than a pint at once, and never more than a quart. Don't be deceived by the ball-valve action of a particle of food or any other cause which may allow water to remain in the stomach. Make sure that you withdraw as much as you introduce, except that you may allow a little for leakage through the pylorus, or possibly absorption. Remember that the more a stomach can hold the less it ought to.

8. Don't imagine that the gastric douche will cure all the diseases of the stomach; you would laugh at a gynecologist who held such a view about the vaginal douche.

9. Don't imagine that a stomach is doing well until it can digest plain, but varied, diet without mechanical interference. Don't speak of a case as cured until he can indulge in all the ordinary food without medical aid and without injury.

10. Don't let the patient learn to pass the tube himself. This rule holds for his benefit as well as yours.

11. Don't fail to use the tube or to have it used when the indications outweigh the contraindications.

Divulsion of the Sphincter Ani as a Therapeutic Agent.

Baughman, in the *Medical Record* of August 20, 1898, says that the majority of rectal diseases are situated either at the sphincter or within one or two inches of it, and all of this part of our anatomy is very liberally supplied with nerves, and all from the same source, so that an irritation in any part of the rectum will affect the entire rectum and sphincter. Any irritation to the nervous supply of the sphincter ani will result in its spasmodic contraction, and thus it may be seen that if we can put this muscle entirely at rest we shall gain an important point in our treatment of most rectal diseases.

There are no troubles that can be so relieved by rest as can the various

diseases and injuries that are affected by this little sphincter ani muscle, and none of them can be relieved with any assurance of success until the fibers of this muscle are perfectly flaccid.

It is almost impossible to divulse the sphincter ani unless our patient is thoroughly under the influence of an anesthetic, for the fibers of this muscle are among the very last in the entire anatomy to yield to the anesthetic, and the pain produced by the divulsion is simply unbearable unless the anesthetic is given. The muscular fibers should never be torn, but by gentle kneading and stretching they should be rendered perfectly flaccid and for the time being paralyzed. It is best first to introduce a bivalve or trivalve speculum, gently open the blades in various directions until the resistant force is partly overcome, and then use the fingers of each hand until the divulsion is completed. It should be remembered that the sphincter ani in women is easier to divulse than the male, and we should ever be on our guard not to carry the process so far as to endanger rupture of the muscle or its permanent paralyzation, for no more deplorable condition could be than this. After divulsion is completed the patient should be kept in bed and be made to remain very quiet for at least eight hours.

MEDICINE.

Prolonged Diphtheria.

In No. 1934 of the *British Medical Journal* was published a description of a case of diphtheria that lasted 362 days. The illness began on March 11, 1896, and after an injection of antitoxin the membrane had almost vanished on the 16th, and the child seemed quite well. Up till August 6 virulent cultures of the bacillus were obtained (twenty-five examinations), at first in pure cultures, afterwards along with streptococci. From then till September 2 cocci predominated, but a few short bacilli proved experimentally to be diphtheritic were also present. On September 1 there was an acute relapse, with patches on the tonsils and B. diphtheriæ in pure culture. By September 4, after an injection of serum (the third), the child was again cured clinically. On September 10 no bacilli were found microscopically, and the cure was thought to be complete (just six months from the beginning), and no more cultures were made. However, on October 22 there was another acute relapse, and the short bacillus was present with streptococci. By October 28 nothing could be discovered under the microscope, and the patient, a boy aged five and a half years, was again looked upon as cured, and no further cultures were made until February 5, 1897, when there was a third acute relapse, and short bacilli and streptococci were found. These persisted after a fourth injection of serum until March 9. From then till September, 1897, the child kept well, but as the parents would not consent to any more bacteriological examinations, it is doubtful if he was finally cured even then. Dr. Gòlay, whose case it was, thinks there can be no doubt but that bacilli were never really absent. He concludes from this and other cases that: (1) A fortnight's isolation after the disappearance of the false membrane, as advised in classical

works, is totally inadequate; not till three or four examinations at intervals of a week have proved the complete absence of bacilli can cure be considered permanent. (2) The presence of Loeffler's bacillus between the attacks of angina does not alter the general health. (3) The prolonged presence of diphtheria bacilli after the disappearance of membrane is the rule rather than the exception, but probably this period is not so prolonged when there is an associated streptococcus infection. (4) Local treatment should be abandoned entirely, as its only use is to torture the patient.

Tuberculin R.

Dr. Stalker, in the *Journal of Laryngology*, has briefly reviewed the work of Bussenius and Cossman on Tuberculin R., as follows:

The pamphlet is written with commendable clearness and precision, presenting the results of an investigation undertaken and prosecuted in a dispassionate and cautious spirit. It begins with a brief history of the tuberculin treatment from the disastrous commencement in 1890 to the present day. Particular stress is laid upon the progress that has been made since 1890 in our view of tubercular lesions — more particularly of pulmonary tubercle. The authors show that Koch himself is much more alive to the difficulties surrounding the treatment of phthisis, and much more distinct and stringent in excluding those cases that have gone on to a state of mixed infection, than he was to begin with. This section is short, but its very brevity emphasizes its statements, and must bring conviction to those who still require it as to the deplorably limited character of the field in which any possible therapeusis of pulmonary phthisis on these lines can work. A brief account of the preparation and immediate effects of Tuberculin R. is followed by a detailed account of the authors' cases—thirty-four in number—chiefly of lupus and pulmonary tubercle. The conclusions are as follows: (1) In no cases can we encourage patients with the hope of a certain cure. Carefully gone about, however, the treatment is attended with no danger. (2) It can be recommended in all cases of lupus, in glandular scrofula, in the initial stages of pulmonary tubercle where yet there is no fever, and in lenticular ulcers of the larynx. (3) In pulmonary cases without fever, when there is a cavity or extensive alteration, we need only try it at the urgent request of the patient. (4) In phthisis with fever we should have nothing to do with it; but if the sputum shows the presence of mixed infection, and if under the other methods of treatment the fever disappears, we can rank the case under heads 2 and 3.

Persistent Ductus Arteriosus.

Zinn, of Gerhardt's clinic (*Berliner Klin. Woch.*, May 16, 1898), relates a case and discusses the diagnosis. The patient was a weakly woman aged thirty-seven, with somewhat clubbed fingers, but no cyanosis. The cardiac dulness began in the left mammary line and extended to the right edge of the sternum. It was also prolonged upwards in a quadrilateral form to the first inner space. The apex beat was in the fifth inner space. There was a systolic thrill most marked in the first left intercostal space. A very loud systolic

murmur was heard in the pulmonary area, and extended into the diastole. The murmur was heard in the carotids and subclavian and very distinctly behind. The pulse was regular, but small. The other organs were healthy. Apparently there were no other symptoms complained of, except shortness of breath on vigorous exertion. There were evidences of past rickets. Rickety children suffer from atelectasis, which is itself looked upon as a cause of persistent ductus arteriosus or patent foramen ovale. The points in favor of a patent duct were the extension of the cardiac dulness upwards and also to the right; the marked systolic murmur and thrill extending into the diastole; the conduction of the murmur into the vessels of the neck; and the absence of cyanosis. The presence of the murmur behind and to the left of the third and fourth thoracic vertebræ has also been looked upon as evidence of a patent ductus arteriosus. Gerhardt thought that a greatly dilated ductus arteriosus would account for the absence of the second pulmonary sound. This malformation is rare, and only a few cases are on record. Grunmach took a Roentgen photograph, and the results obtained confirmed the view advanced above. The extension of the cardiac dulness upwards in cases of persistent ductus arteriosus was pointed out by Gerhardt. It is due to a dilatation of the pulmonary arteriosus brought about by the entrance of the blood from the aorta.

Perforation of Typhoid; Operation and Recovery.

Dr. H. Hanford, in the *British Medical Journal* of July 23, in reporting a case of typhoid fever, says that perforation of the intestine in typhoid fever is unfortunately not uncommon, and although there is little doubt that recovery does occasionally, though very rarely, follow, the result in a vast majority of cases is fatal unless surgical aid be sought. Diagnosis of perforation, in the early stage, is by no means always easy. By far the most important difficulty in recommending operation is the fact that usually when perforation occurs the patient is prostrated by an acute and exhausting disease, the course of which is not yet terminated. The patient in this case had been in bed for six days. He had not been well for three weeks, and had complained of pain in the head and limbs, diarrhea, sickness, sore throat, cough, deafness, and nocturnal delirium. On the evening of the twenty-ninth day in bed, and probably the thirty-third day of the disease, he complained of a sudden pain in the abdomen, but the pulse did not rise above 90, and the temperature remained subnormal. The writer did not see him until twenty-one hours after the sudden onset of the abdominal pain. By that time his pulse had risen to 120, his temperature to 102° F. He was operated upon twenty-two and a half hours after the occurrence of the perforation. The patient made a rapid recovery.

The Cause of the Effects Produced by Exposure to the Roentgen Rays.

Dr. Alfred C. Prentiss, of New York, in the *Medical Review of Reviews*, concludes his paper as follows: (1) The general character of the tissues affected in the *x*-ray burn is that of an absolute necrosis and more or less

exudative inflammation; the resulting alopecia is more or less marked in lesions involving hair follicles. (2) The *x*-rays themselves observe no appreciable heating effects, and consequently do not burn. All evidence seems to point to the conclusion that the lesion is due to the effects of the electric currents upon the tissues; the nature of this effect is yet wholly speculative. (3) The ozone irritation theory is not supported by evidence. (4) Metallic particles of the platinum point are not subjected to change by the proximity to an *x*-ray tube. (5) *X*-rays do not decompose the silver salt or the photographic plate director, but produce in the gelatin film a fluorescence which in turn acts upon the silver salt in its ordinary light. (6) The use of the metallic, rather than the induced, electric current in producing the *x*-ray is less liable to result harmfully: (*a*) because it is of low amperage, and (*b*) being of very high potential comparatively does not necessitate so short a distance between the tube and the exposed part. (7) In all cases where exposure is required in a distance less than twelve inches below the tube, an aluminum screen electrically ground should be placed between the tube and the exposed part.

Maggots.

Cohn (*Deutsche Medicinische Wochenschrift*, No. 12) reports a case of a three months' old dyspeptic infant, on the clothes of which particles of vomitus developed into maggots. On examination of feces and vomitus eggs of the ordinary house-fly were found (Musca domestica). These strange organisms disappeared in a few days.

In the same journal Bachman reports a case of a gendarme suffering from a gastritis with vomiting of "worms." The worms proved to be fly-maggots. A decoction of Persian insect powder 5 :200 was prescribed. A day later the stools contained masses of partly digested maggots.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,
Microscopist to Harper Hospital, Detroit.

Weigert-Pal Method for Paraffin Sections.

E. E. Laslett (*Lancet*, August 6, 1898), in a note regarding the staining of nervous tissue after being treated by embedding in paraffin, says that so far as he is aware no mode of procedure has yet been published by which the Weigert staining method for nervous tissues can be applied to paraffin sections. For some time attempts were made to apply the method which is known in Schafer's Histology as the Weigert-Pal process to paraffin sections by first fixing them on a slide and, after removal of the paraffin in the usual way, treating with Marchi's solution, followed by the acetic acid hematoxylin. This method was found to be unsatisfactory, as, although the nerve fibers were marked out in a more or less definite way, it was seen on close examination that they did not really stain in "ring fashion" at all. In sections stained by

the Weigert method it is the medullary sheath which should be picked out, appearing in cross-section as a black ring, whereas in the sections treated as above it was practically the axis cylinder only which retained the hematoxylin after differentiation.

The following method was next tried, and it has proved an efficient and trustworthy one: The material—spinal cord, medulla, or other tissue—is hardened for about a fortnight in Muller's fluid and then cut into slices, which should not be more than about two millimeters in thickness. These are placed in Marchi's fluid for a week, washed, and embedded in paraffin in the usual way. Thin sections are cut, fixed on the slide by the warm water method, and then after removal of the paraffin placed in the acetic acid hematoxylin over night, preferably in a warm oven, the heat materially hastening the process of staining. After washing they may be passed into a saturated solution of sodium or lithium carbonate, by which the color is changed to a bluish-black. They are then differentiated by the Pal method, in which process it is advisable to use weak solutions, watching the progress of the change carefully lest the sections, which are very thin, become too much decolorized.

The advantages of the above method are: (1) that it is a combination of the Marchi and Weigert methods and is therefore applicable to pathological nervous tissues in all stages of alteration; and (2) that it offers advantages of paraffin over celloidin as an embedding material, the chief one of which is the extreme thinness of section attainable. In thin sections stained as above the fine medullated fibers of the gray matter show a double contour quite plainly. Hence it should be easy to trace the course of degenerating fibers in the gray matter itself, the regular double contour being then broken up in the characteristic way into black staining droplets of myelin. Provided that the pieces placed in the Marchi solution are not more than two millimeters in thickness, sections of the human medulla may be quite successfully stained in this way. Professor Sherrington has very kindly examined Laslett's specimens, and he considers the method likely to prove a useful one.

THERAPEUTICS.

Mechanical Treatment of Obesity.

Dr. Winternitz (*Therapeutische Wochenschrift*, Dec. 5, 1897) objects to the dietetic treatment of obesity, whether the method employed is that of Harvey, Banting, or Epstein, as these means establish inanition and are capable of producing gout, serious digestive troubles, and rebellious neurasthenic states. The recent agents, Poehl's spermin, thyroid extract, etc., favor intraorganic oxidation in a high degree, but have dangers which have been made the object of numerous communications, these troubles being especially circulatory and nervous. Muscular activity that has been so widely advised is not always good, on account of the hyperthermia that this activity produces. In noticing the change in temperature in cases in which obese patients have undergone violent exercise, we find that it is sometimes of a febrile character and that the

organic albumen loses its vitality. This process consequently causes nervous debility, anemia, and albuminuria. It is necessary to invent a means of increasing oxidation and at the same time avoid hyperthermia, in such a way as to destroy thé fat without affecting the albumen. To this end Winternitz advises lowering the temperature of the body before exercise. It is easy to do this by means of a bath of 12° or 14° C., lasting fifteen or twenty minutes; by this means one can take away five hundred calories from the organism. To recuperate these, fifty grammes of fat must be consumed. In order that lowering of the temperature may not cause contraction of the cutaneous vessels, he proceeds as follows: In the morning submit the patient to an energetic rubbing with a towel wet in cold water; then place him for five or ten minutes in a steam room; on leaving this room he takes a bath at a low temperature, lasting from three to six minutes. Severe muscular exercise terminates the treatment. This may be repeated two or three times in twenty-four hours. It is useless with this method to prescribe a rigid diet; the results are rapid and are never accompanied by troubles similar to those observed with the other methods.

How to Make Kumiss.

The *Dietetic and Hygienic Gazette* for August says that the value of kumiss as a nutrient and stimulating beverage in cases of general debility, malnutrition and wasting diseases is well established. The original form of this beverage, as made in Tartary by the fermentation of mare's milk, is of course seldom available, and is by no means necessary. A very good and useful kumiss may readily be prepared as follows:

Fill a quart champagne bottle to the neck with pure cow's milk; add two tablespoonfuls of white sugar, first dissolving it in a little water by the aid of heat; add also a quarter of a two-cent cake of compressed yeast. Then securely fasten the cork in the bottle and shake the mixture well; place it in a room having a temperature of from 70° to 80° F. for six hours, and finally in the ice-box for about twelve hours. It is then ready for use and may be taken in quantities varying with the requirements of the stomach and general condition of the patient. In preparing the kumiss it is well to make sure that the milk is pure, that the bottle is sound, and that the yeast is fresh. The bottle should be opened with great care, on account of the effervescent properties of the mixture, and the latter should be discarded and not drunk at all if there is any curdle or thickened masses resembling cheese, as these indicate that the fermentation has been prolonged beyond the proper time. It should be prepared as required for use. The virtue of kumiss resides in the fact that it nourishes, refreshes, and stimulates, with no subsequent reaction from its effects. Kumiss contains some alcohol, with fat, casein, lactic acid, and carbonic acid gas. The cost is about fifteen cents per quart, including the bottle.

Myrrh in the Treatment of Malaria.

Jeffery, in the *Medical Record* of August 20, 1898, recommends in obstinate cases of malaria a combination of quinine 40 grains, pulverized myrrh 20

grains, and powdered licorice 10 grains, to be made into forty pills, one to be taken every two hours. The writer says he had abundant opportunity to test the efficacy of this and it never failed to give the happiest of results.

Binz, in his Elements of Therapeutics, in speaking of myrrh, says: "From experiments we know that myrrh, even when given in doses of thirty minims of the tincture, increases the number of white blood-corpuscles fourfold, and we know from counter-experiments that this result is not due to the alcohol." By some the white blood-corpuscles are said to be the scavengers of the blood. If this be so, the plasmodium malariæ can be more easily eliminated, and the benefit derived by the addition of myrrh to the quinine in the treatment of malaria is explained.

Treatment of Acute Phosphorous and Morphine Poisoning.

Against the above named poisons, potassium permanganate has been used generally as an antidote. The action of the drug causes an oxidation of the phosphorus and morphine, making them harmless. Potassium permanganate, on account of the potassium it contains, cannot be given in large doses, therefore Schreiber substituted sodium permanganate in its place. His experiments on animals prove the sodium salt as effective as the potassium, and it can be given in larger doses.

The author advises in poisoning to wash out the stomach with a 0.2-percent. solution of sodium permanganate and then allow one pint of the solution to remain in the stomach.—*Centralblatt für Innere Medicin*, No. 23, 1898.

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT, MICH.,
Attending Neurologist to Harper Hospital.

The Psychology of Hypnotism.

Mr. F. N. H. Myers (*Lancet*, August 6, 1898), at the recent meeting of the British Medical Association, delivered an address on the "Psychological Side of Hypnotism," in which he said that he understood what was desired was some attempt at a coherent psychological presentation of the multifarious and perplexing facts now commonly grouped under the name of hypnotism, which facts physiology was not as yet able to explain. If a somewhat closer approach could be made on the psychological side, this must needs be by bringing into comparison a great mass of cognate life-phenomena, such as hysteria, ordinary sleep, and somnambulism. The analogies and differences between hypnotism and hysteria were particularly instructive. Both in hypnosis and hysteria there were disaggregations of the personality, at first apparently similar, afterwards seen to be governed by quite different laws. To understand what happened in either case it was convenient to picture to oneself human personality as in a certain sense stratified, part of it lying above and part of it below the threshold of consciousness, the level above which thought or sensation must rise in order that it may enter into our wak-

ing life, or become subject to our voluntary control, or find a place in our chain of memories. Now, the characteristic trouble of hysteria was that fragments of faculty, of power, of sensation or motion, which it was desirable to retain above the conscious threshold, were apt to sink down below that threshold and thus to become useless to the hysterical patient. For instance, the patient would suffer from hysterical paralysis, say of one leg, or from a diminution of her field of vision, while yet there was no perceptible organic injury to brain or leg or eye. What was thus lost could not be recovered at will, but might nevertheless be suddenly restored for a time or permanently by some shock, as when a hysterical paralytic patient recovered the use of her limbs in the terror of a fire, or was able to discern a terrifying object such as a stuffed mouse when it was brought into that part of her normal field of vision of the use of which hysteria had deprived her.

With the hypnotized subjects, on the other hand, the case was quite different. They were able to recall at will from beneath the threshold any faculty or sensation which they might have lost through hysteria, so that in just the ways in which hysteria could destroy, hypnotism could fulfil, and they were able also to send down beneath the threshold and dismiss from consciousness sensations which they wished to get rid of, even such insistent sensations as the pain of an operation or of childbirth. The next point of great psychological importance was the analogy between hypnotism and sleep. The essential fact of sleep was the shutting-off of the supraliminal life—the life concerned with facts above the conscious threshold—and the consequent increase of inward subliminal recuperative power. Hypnotism in the first place made our entry into this regenerative phase of our personality easy and certain. It did more than this, for in hypnotic trance the subliminal plasticity was more marked than in ordinary sleep and the subliminal control intenser, so that hypnosis sometimes seemed to be to sleep what sleep was to waking. Indeed, the leading facts of hypnotism, both for physician and for psychologist, the facts which called most pressingly both for explanation and for development, were those profound sanative regenerations which had now so often transformed the dipsomaniac and the morphinomaniac into self-controlled and useful members of society. But how, after all, was this further control over subliminal plasticity—over the *vis medicatrix naturæ*—actually reached? The consensus of hypnotists now declared that the secret lay in suggestion. But what was suggestion? Did the hypnotizer infuse power or merely evoke it? The speaker believed that in some cases there was actually a transmission of power, of some subliminal power akin to what he termed "telepathy." But in many cases there was manifestly no such transmission; the hypnotizer merely taught the subject to start self-suggestions of his own. What it was that made those self-suggestions effective, that helped him to take hold, no theory could at present tell us. We might learn something by observing prevalent forms of self-suggestion outside the doctor's consulting-room altogether. One of these popular self-suggestions was the fountain of Lourdes, another was so-called Christian science or mind-cure. Both of these took advantage of deep-rooted beliefs, although expressed with a superstition or an extravagance repulsive to the scientific man. It was, however, the duty of

science to clarify, to utilize, to interpret whatever of real self-suggestive efficacy might lurk in any superstition, in any extravagance. By some means or other—and only wide experiment could show what means were best—science must subject to her own deliberate purposes that intelligent vital control, that reserve of energy, which lay beneath the conscious threshold and worked obscurely for the evolution of man.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Diagnosis of Esophago-tracheal Fistula.

Kohlenberg had an opportunity of demonstrating on a case a method of diagnosis suggested by experiments of Gerhardt and others. An ordinary stomach tube is introduced into the esophagus, the upper window of the tube directed forward. The tube is passed down with short interruptions, while the patient makes deep inspirations, and a lighted candle is held at the end of the tube. Under ordinary conditions the flame is blown gently in and out, but if there is a communication between the trachea and esophagus the flame will be blown out when the opening of the tube comes opposite to the fistula.—*Deutsche Medicinische Wochenschrift.*

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,

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Freckles.

Jamison (*British Medical Journal*, August 6, 1898) has this to say in regard to certain individuals freckling:

"Certain skins exhibit an exaggerated sensitiveness to light, but to only one of the methods in which such react will reference be made at present. Some individuals, particularly those with reddish hair, freckle readily during the brighter part of the year. This impressibility may be congenital, the result of changes due to age, or acquired as the consequence of excessive exposure to intense radiation. There can be little doubt that these freckles are an effort on the part of Nature to protect areas which are from some cause more than usually delicate, to impart rapidly to limited spots the same safeguard which the progress of the ages has given to the darker races of humanity. The researches of Bowles have proved that it is the chemical rays which are thus active, and though their effects are most pronounced on uncovered parts, they are not restricted to these. They in this respect correspond to the *x*-rays, since freckles are met with on portions of the body on which the sunlight never impinges directly for any length of time, if at all. The most remarkable example of this susceptibility occurs in xeroderma pigmentosum. Not only have we intense freckling, but dryness and hyper-

keratosis, at first diffuse, after a time taking on a warty and then a carcinomatous degeneration. Unna has thrown out the suggestion that by due protection from the chemical rays the freckling might be modified in this melancholy if rare disease, the further malignant changes postponed or arrested, and amelioration if not cure obtained. A case of this kind has been under my care for two years and a half, and in it we have been able to check the advance almost perfectly. An ointment stained brown by the addition of raw umber has been pretty constantly applied to the face, a dark brown veil worn whenever the child (now six) has gone out, and the warts on their earliest appearance treated with salicylic collodion. In this way fairly perfect rest has been obtained for the abnormally tender skin."

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

Blood-clot in Mastoid Operations.

At the annual meeting of the American Otological Society, July 19, 1898, Dr. C. J. Blake, of Boston, stated that for two years he had tried to obtain healing by first intention, under a blood-clot, in operating on the mastoid both in acute and chronic cases. In both he obtained encouraging results. As soon as discharge set in he removed the clot, yet there were cases where discharge appeared only in one corner of the wound, necessitating only the removal of the adjacent portion of the clot. He treated in this way twenty-five cases—sixteen acute, nine chronic. He wants to pursue this treatment longer before he gives a definite opinion as to the breadth of its applicability.

Cassaripe, a New Remedy for Corneal Ulcers.

Dr. Risley, of Philadelphia, at the annual meeting of the American Ophthalmological Society, July 20, reported his very interesting experience with cassaripe as a useful remedy in the treatment of corneal ulcers and infectious diseases of the conjunctiva. His attention was called to the drug by Dr. H. B. Chandler, to whom its employment was suggested by its use in the tropics for the preservation of meats. Two varieties are cultivated from the bulbous root, which contains farina in abundance. This is obtained by grating the root to a pulp, after which the poisonous juice is expelled by pressure and washing. The starch product forms the cassava bread of the tropics, while the juice is reduced by boiling to a syrupy liquid, which forms the basis of the West Indian pepper-pot, used extensively as a condiment by the natives. When poured over meats it preserves them almost indefinitely from putrefaction. This prepared juice is known as "cassaripe" or "cassareep."

The method adopted for the use of the cassaripe as a therapeutic agent was in the form of a ten-per-cent. ointment, vaselin being used as the excipient. It caused no irritation, but proved a valuable means of treating ulcers of the cornea and infectious diseases of the conjunctiva.

THE MEDICAL AGE

VOL. XVI. DETROIT, SEPTEMBER 26, 1898. No. 18.

ORIGINAL CONTRIBUTIONS.

HOW TO PREVENT COUNTY CARE OF THE INSANE AND THE GENERAL ESTABLISHMENT OF COUNTY INSANE ASYLUMS.*

BY EDWARD W. JENKS, M.D.,

Member of the Michigan Board of Corrections and Charities.

There is no intention nor desire to discuss in this paper the pathology or treatment of insanity, from either a medical or an official standpoint; nor has the Board of Corrections and Charities any fault to find, nor criticism to make, upon the treatment of inmates in our State institutions for the insane; on the contrary, careful observation has shown that the medical superintendents and their respective staffs of the State asylums and hospitals for the insane are competent and skilful in the highest degree, while our visits to like institutions in other States and in the neighboring Dominion not only confirm such opinion of our own institutions, but cause us to feel a great pride in the manner in which this commonwealth cares for its insane. The Board of Corrections and Charities is ever desirous to do what it can to assist in the continuance of this good work, and will aid as much as lies within its power to advance the interests and importance of each and every Michigan institution maintained for the care and cure of her citizens whose minds are dethroned and whose intellects are darkened by disease. In the matter of application of legislative appropriations there may sometimes have arisen differences of opinion, yet not often, for harmony has generally prevailed between the board I represent and the several boards of control. The Board of Corrections and Charities, however, must and will be governed in all its actions by what it considers to be a strict construction of the law. But be assured that no personal consideration ever enters into the problem—indeed, personal desires, not to say opinions, sometimes run counter to required official actions; however, it is a gratifying experience that, as a rule, such is also the desire of the boards of our State institutions. This concludes my introductory to the brief paper I present for your consideration.

It is the lack of facilities for the proper care of the insane, and how best to increase the facilities and bring all the insane under proper supervision and

*A paper read at a meeting of the Joint Boards of the State Asylums for the Insane of Michigan, held at Traverse City, July 21, 1898.

medical care, which I desire to bring before you for discussion. The lack of such facilities compelled Wayne county to seek relief by establishing her own County Asylum for the Insane. Fortunately, careful and scientific care of patients in that institution has been secured with excellent results and a percentage of recoveries equal to State hospitals for the insane. This asylum is admirably managed from both economic and curative standpoints, and is a credit to the most populous county in the State. The constant supervision of the State Board of Corrections and Charities, and the provision of law which requires that such Board shall certify that patients have received proper care and maintenance before the cost of such maintenance can be audited by the Board of State Auditors, and paid by the State Treasurer, is a bar to the usual evils attending county care of the insane ever finding a place in the Wayne county institution. It is a necessity for Wayne county, for without it how could its four hundred inmates be properly cared for when every State asylum is crowded to its utmost capacity? Kent county has sought and, as far as the State Legislature can secure it, has found relief under a like statute to that governing Wayne county. Nothing, however, has yet been accomplished in Kent county toward the erection of an asylum building.

The fact is apparent to even those without medical knowledge that the high pressure and many sociological conditions of American life tend toward the increase of mental diseases, and that the subjects of them require institutional treatment somewhere. Our State institutions do not receive and give such care as is considered necessary to numbers of applicants for admission to them, and as a natural consequence the county care of the insane is suggested as a necessity, and is being seriously considered throughout the State, and in the majority of instances by counties in which, if adopted, the care would be a very poor and weak imitation of Wayne county's. In some counties, as we know, not even this is planned for, but simply an enlargement of the county house, so as to provide quarters for the insane. This would be a retrograde movement and not in harmony with present-day methods. In one county (Houghton) already the old court-house is undergoing remodeling so that rooms for the insane can be provided in it. In many of our jails not a month passes in which insane persons are not confined in them, and have been held from two to three hundred and fifteen days.

Only about half the sheriffs have as yet reported to the State Board of Corrections and Charities on the insane in their respective jails during the last fiscal year, and still the following facts have been brought out: In all but eight jails reported on, insane persons have been confined, ranging as follows: In nine jails, one each; six jails, two each; seven jails, three each; two jails, four each; one jail, five; one jail, six; two jails, seven each; one jail, nine; one jail, ten; one jail, eleven; two jails, twelve each; one jail, fifteen; one jail, twenty-three—a total of one hundred and fifty-seven insane persons who have been held in thirty-five county jails during the year, waiting for room in our State institutions. Thirteen were held less than ten days each; the others seventeen days, nineteen days, twenty-one days, twenty-four days, twenty-eight days, twenty-nine days, thirty days, thirty-one days, fifty-five days, sixty days, seventy-four days, eighty-nine days, one hundred and twenty days, one hun-

dred and twenty-eight days, one hundred and sixty-three days, and one hundred and eighty-four days. I have just received a report from one sheriff that he has had during the past year twenty-three insane persons confined in his jail—one being there three hundred and fifteen days, while the average for the entire number is $100\frac{54}{100}$ days. The query, "Have the asylum authorities any legal right to refuse immediate admission to an insane person who has been legally committed to a State asylum?" is arising in the minds of many who are meeting the refusal of such authorities to receive the insane at once from the courts.

Is it strange, with the condition of things as above shown, and the refusal of our State institutions to relieve such conditions, beyond receiving a number who can have the professional care which is considered desirable, that county authorities are considering other means of relief? The evils of county house care for such are less in the opinion of such county authorities than those which now exist in holding the insane in jail. The suggestion from some quarters that a group of small counties might combine and erect and maintain a joint asylum would seem to have nothing in it to lessen the evils attending the care of the insane in county houses, and must add to the trouble, for the results of petty local jealousies, to which our frail human nature is prone, would be continually cropping out. Any realization of the reproach to our boasted civilization in the usual care given an insane person in a county house does not seem to exist in the mind of the average county officer, and the suggestion that their method is unscientific and a relic of the past will have little weight to deter from an attempt to relieve the pressure by providing at the county houses again cells in which to confine such afflicted cases. Some county officers boast of the small cost of caring for their dependent poor, and while such a spirit prevails cheapness will be the main consideration. Appeal to the Legislature for the relief so much needed has lacked the ocular feature required to convince Legislature members that the argument that scores of patients are shut out of our State institutions because of lack of room is not mainly a hallucination which has taken possession of the persons who urge it. Relief in a proper direction can only come by act of the Legislature. Legislative relief will only come when the Legislature is convinced that any relief is needed, and ocular demonstration is required to secure such conviction. The Asylum Boards and the State Board of Corrections and Charities have by figures and arguments based on such figures, in their several reports, tried to impress the importance of providing all needed additional room at the State institutions; they have followed up such reports by statements before committees in both House and Senate, and have in response met insinuations, if not actual expression, of doubt as to the fact that multitudes have applied for admission who could not be received because of lack of room. The Board of Charities is now making an effort to secure information regarding the number of insane persons who have been held in our county jails during the last fiscal year, and the length of time they were there held awaiting room in our State institutions (information which has not before been obtained in this exact form), and this is being done for the purpose of emphasizing more strongly than ever before the urgent need of additional accommodation at our State asylums.

All will recall the stock criticism concerning our asylums and hospitals for the insane, that they are full of chronic patients who might just as well be at their own homes, and so make room for acute and recent cases. To a certain extent such criticism is tenable; but, if my information is correct, the fault is not altogether with the boards or medical superintendents, but to some extent with the county authorities, who pay no attention to the notices sent them for the removal of patients provided for in the revised act of 1885, as amended by laws of 1889. As this act is construed, the sending of such notice, as provided, exhausts and limits the power of the boards to act in this direction. If the boards are so limited by law, and if the notices for removal are thus ignored by the county authorities, it would seem that an amendment to the section should be passed which would authorize and direct the medical superintendent, after a definite time has elapsed from the time such notices are to take effect, to send such patients back to the counties so notified, or, if such had become State charges, that they should be retransferred back as county charges, if not immediately removed. Such amendment would do much not only to counteract what justice there may be in the criticism alluded to, but greatly aid in providing room so much needed for cases demanding early treatment. Ocular demonstration of the need of more room has been mentioned as sufficient proof that it is necessary to secure from the Legislature the required relief. The only place where such relief can or should be had is by the cooperation of the institutions themselves by their superintendents and boards of control. For a time the limit of admissions based on beneficial grounds alone must give way to immediate admission to all who are committed.

In this way the overcrowded condition of our State institutions for the insane will plainly demonstrate the most urgent need of additional accommodation, and do it with more force than will any number of applications on file for admission of patients waiting for room to be admitted. By this method the admission of persons immediately on commitment will deprive the advocates of county care of the insane of their most formidable and seductive argument. Such a departure from the undoubtedly wise, scientific and humane plan of limiting admissions on beneficial grounds would doubtless be most distasteful, even quite repugnant, to most of us, but it would seem, judging from past experience, to be the only sure way to nip in the bud that which is fast maturing into a strong sentiment, to again care for a portion, at least, of our insane in county houses. There is no denying nor evading the fact that counties are fast drifting toward such a sentiment. The State institutions had best concede this, also the fact that it is largely in their power to stay its advance. If necessary to accomplish this, it is better to hold in abeyance for a time scientific and professional convictions and opinions to the end that no person shall be delayed in admission to an institution after he has been committed to it, by which delay other means of care are suggested, and that by the living presence of the patient in an overcrowded institution, rather than by his application in the files of the asylum, shall convincing proof of the need of and a strong argument favoring the additional accommodations so greatly needed be presented.

In conclusion I will summarize as follows:

1. The writer personally, and as representing and speaking for the State Board of Corrections and Charities, desires to express his utmost confidence in the professional attainments and executive ability of the superintendents and the probity and business methods of the boards of control of each one of the State hospitals for the insane of which Michigan has just reason to be proud.

2. That while honest differences of opinion may sometimes arise between the State Board of Corrections and Charities and the boards of control of State institutions, the members of the former Board invariably are influenced only by their own understanding of the law as enacted, and the desire that its provisions should be carried out, but with all due regard to personal differences and desires, as far as they do not conflict with what is believed by them to be the law of the State.

3. The drift of public sentiment in some quarters is strongly toward county care for the insane, which can be counteracted by concerted action on your part to secure proper legislation and the enforcement of law.

4. The County Asylum in Wayne county, being founded as a necessity, was in the outset experimental, but has proven of late years, through careful and judicious management, a notable success with all that the term implies. But notwithstanding this one instance, county asylums cannot as a rule be ideal institutions, and their establishment should be discountenanced and prevented.

5. In a majority of counties such care would simply mean a return to the unfortunate maintenance of insane in county poorhouses, which would be detrimental to the patients and a reproach to the commonwealth.

6. One prominent cause for the existence and growth of such sentiment is the inability of counties to secure the reception of their insane in our State institutions immediately on commitment by courts.

7. Experience has plainly demonstrated that insane patients can be more humanely cared for and receive better medical treatment in institutions where patients of no other class are admitted.

8. The medical care of the insane in ordinary county poorhouses cannot be commended, for the reason that physicians qualified to treat insane patients must have special training under competent masters to properly fit them for such duties, and physicians cannot be found in every county with the requisite qualification.

9. The State asylum boards must concede the state of affairs referred to above and should endeavor to correct them as follows: (*a*) By the immediate reception of persons committed as insane; (*b*) by securing relief through the Legislature. These ends can only be attained through an amendment of the law which will permit them to send back to counties patients who in the judgment of the board should no longer occupy room in asylums to the exclusion of presumably curable cases, and further by demonstrating the fact to the Legislature that greater and additional accommodations are needed, by showing overcrowded institutions rather than by exhibiting a great file of applications held up.

10. I have purposely avoided advocating the establishment of another State

hospital for the insane, although the necessity for one may arise in the near future, but instead suggest means for increasing and diffusing the usefulness of those already in existence.

11. It is not for the wealthy insane that I am pleading, as those who are able to pay can always find room in well-equipped private hospitals; but it is for the multitude who are either county or State charges.

12. It is no Utopian scheme that I advocate, but one that is practicable and follows in the line of doing the greatest good to the greatest number, to which end you can always count upon the aid and cooperation of the State Board of Corrections and Charities.

THE SURGICAL TREATMENT OF TUBERCULOSIS OF THE PERITONEUM.*

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The following is the clinical history of a case of tubercular peritonitis which is of great interest to me, showing how slow is the invasion of this disease in some cases, without the ordinary symptoms that are laid down in our text-books.

I was called November 3, 1894, to attend Mrs. B——, white, aged thirty-three. Found her in her third pregnancy, between the seventh and eighth months, with no history of miscarriages. The patient had always enjoyed excellent health and appeared healthy at this examination, excepting a diarrhea for two weeks past. The diarrhea could be checked only for a few days and continued through her entire illness. She was delivered December 23, 1894, of a healthy baby. Her recovery was uninterrupted, and the secretion of milk was normal. In the fourth month of her sickness a thorough examination was made of all the different organs of the body, and they were found healthy, but the patient was slowly losing flesh and strength. No permanent benefit had been derived from treatment. She had slight abdominal pains, not localized or severe enough to call for an opiate. In the fifth month a slight swelling was discovered over the region of the appendix, slightly tender on firm pressure. The case was now thought to be appendicitis, with probably the formation of an abscess discharging into the bowels; in such a case we would have diarrhea, probably alternating with constipation, and such was now the condition of our patient. This swelling diminished, but never entirely disappeared. An operation was proposed, but was not consented to.

In the seventh month of her sickness the woman had become very weak and greatly emaciated; strength was failing her very rapidly; temperature from 97½° in the morning to 99° in the afternoon under the tongue; pulse 100 to 120. She took large doses of morphine to relieve the abdominal pains. Her bowels were now obstinately constipated.

The patient now consented to a laparotomy, which was done at the Zanesville Hospital, June 17, 1895, by the abdominal surgeon of that institution. The appendix was found inflamed, and a hard particle of fecal matter was

*Read before the Ohio State Medical Society.

found in it after its removal. About a half-pint of serous fluid was drained from the peritoneal cavity. The peritoneum was found studded with hard miliary tubercles. The other abdominal organs were found normal. She made a rapid recovery, gaining her appetite and strength. Her bowels became regular, and her health improved in every way. It is now three years since the operation, and her health continues good.

A subnormal temperature was frequently noted, and it appears that subnormal temperature for weeks or months is frequent in cases of fibrous tubercles where there are slight inflammation and small effusion, or there may be slight fever alternating with subnormal temperature.

A large proportion of all the various forms of tubercular peritonitis are cured or greatly benefited by a simple laparotomy with the removal of exudate. Why so simple a treatment produces such radical changes in this disease is remarkable and without analogy in the whole domain of surgery. Many theories have been advanced explaining this phenomenon, but as yet none can be demonstrated to be true. The cause may be that which Tait has arrived at, that when the abdomen is opened a physiologic change is produced in the peritoneum which enables it to overcome and destroy the tubercle bacillus.

In operating, the serous or purulent exudations should be drained out and the abdominal cavity thoroughly dried with sterilized gauze, and not irrigated with saline or other medicated solutions. Many authorities advise drainage of abdomen, but it is better to completely close the abdomen at once, for when you establish drainage a permanent fistula often results, and delay in the healing of wounds is always a serious thing for these patients.

It should be remembered that in all the early cases reported a cure resulted from a simple exploratory operation where probably the nature of the disease was not recognized until after the abdomen was opened, then the case pronounced incurable, the abdomen closed, when, to the surprise of the surgeon, his patient recovered.

The cases most likely to be benefited by operation are those similar to the one presented, and also those accompanied with considerable exudation either free or encysted. Such cases are most likely to be primary in the peritoneum, and the general condition of the patient is usually better. In cases with purulent and large caseous masses in the peritoneum the prospect for recovery is less hopeful, but many cures are recorded, and surprising results often follow abdominal section. In the chronic adhesive form of this disease, where there is little or no serum or purulent exudate and coils of intestines are matted together with large caseous masses, little or no benefit can be expected to follow an operation.

In children the infection appears to pass from the intestines and from the same source when the patient has chronic phthisis, while in women the infection frequently comes from the Fallopian tubes, and in men often from the prostate or seminal vesicles. When the abdomen is opened these parts should be examined particularly, and, if found affected, the original source of infection should be entirely removed and caseous masses scraped out.

This disease may be latent through its whole process and not have a single symptom; or, in contrast, the onset may be so sudden and violent that a diag-

nosis is made of acute enteritis or peritonitis, or of strangulated hernia, and be operated upon, or of typhoid fever.

Where advanced pulmonary phthisis or acute miliary tuberculosis is associated with the peritonitis the operation should not be done.

In preparing this paper I have quoted some from a former article, published in the *Medical Record* for October, 1895.

TREATMENT OF ABORTION.*

BY W. H. MONDAY, M.D., TERRELL, TEXAS.

Circumstances often afford the general practitioner in medicine special advantages, especially if he has an average practise and experience of several years, such as giving close study to certain forms of disease, in which he usually becomes interested, and eventually quite proficient in their diagnosis and treatment. As a general practitioner, it has been my fortune during the past years to come in contact with quite a number of abortions from various causes, but as it is not the purpose of this paper to discuss the various causes of the subject in question, suffice it to say, if this question be carefully considered from a practical standpoint, one may not be surprised to find it occurring often. The great question of to-day among a large number of the American women is, how to prevent conception or how to alleviate its various embarrassments, pains, and mortifications. Her environments and customs of dress, mode and style of living, all tend to rid her of that duty for which Nature first intended her, to be a mother. As the intention of this paper is to consider the subject from a standpoint of treatment, I wish to say that the term abortion is usually applied to the expulsion of the ovum before the fourth month, at a time when the placenta is not yet differentiated from the rest of the chorion. Premature labor signifies the delivery of a fetus that has become viable. The word miscarriage is often applied to that period between the fourth and seventh months, yet at the same time very little difference is called for in considering the duties of the practitioner in his attention to these cases. It is an acknowledged fact that when a patient gets in the habit of aborting, it is a difficult matter to prevent the characteristic habit.

The first symptom of abortion that will engage the attention of the patient and attendants is pain of a labor-like character; then begins hemorrhage, which is called "show." Opiates, with rest in bed, is the first treatment indicated; if the stomach is irritable, morphine and atropine may be given hypodermically until the therapeutic effect of the drug has been reached. Fluid extract of black haw is very highly extolled by many. Chloral hydrate, potassium bromide and other nerve sedatives may be given. Small doses of ergot with full doses of opiates are often resorted to. If pain and hemorrhage continue, and, after a digital examination, a softened os, with dilatation, and a continuous pain, after giving a fair trial of medication without relief, all treatment had just as well be suspended and let Dame Nature have the case for a while. The ovum will more than likely be expelled, perhaps with great pain and hemorrhage. The placenta will then engage the attendant's attention; often it is small and pulpy and will not admit of removal by forceps.

*Read before the Texas State Medical Association.

The plan the writer almost always adopts is to be exceedingly careful as to aseptic treatment. Have all instruments and appliances sterilized, together with the operator's hands, towels, and dressings; place the patient in a Sims or dorsal position, then with plenty of iodoform gauze, with suitable application and dressing forceps introduce your speculum, exercising care that no instruments or dressing touch anything that has not been well and thoroughly sterilized. Then proceed to pack carefully the cavity of the womb, filling all parts from bottom to top, and continue the packing around the os till posterior, anterior and lateral cul-de-sac are well packed. Continue the packing till the vagina is well packed, then confine same in position by an aseptic pad and a T-bandage. This is to remain at least twelve hours—if the work is done properly, it may remain longer — then the entire mass may be removed. Nearly always the entire placenta will be found to come away with the packing. If not, then use a douche curette attached to a fountain syringe, with plenty of sterilized water, to which may be added a small quantity of carbolic acid, say one and a half or two per cent. Suspend the syringe so as to have a gentle flow, place your patient in either of the above named positions, so arranged as to have a good light, introduce a speculum, then the curette—one not too sharp is desirable, for a sharp curette inside the womb, in careless hands, may and often does do mischief, and in this instance is unnecessary—then turn on the water. As the curetting is going on the water is gently flowing and washing away all débris as it is detached. With a little care and caution one can soon go over the entire surface, removing and washing away all that which should be carried away, leaving the endometrium in a clean and aseptic condition. Then give a small opiate, have the patient dried and put to bed in a quiet and darkened room. In a short time she will be found resting quietly; she will regain her usual amount of composure, and in a few days will be able to be up again.

But suppose you do not have such results. Suppose you have a hysterical case. Suppose you have the misfortune to get your patient infected; she has a chill, followed by fever, soreness in the abdominal region. Then it is admissible to go immediately about irrigating the endometrium again, with hot sterilized water, as before. Open the bowels gently with a saline purge, relieve pain with opiates, treat her on general principles for septicemia, paying close attention to cleanliness, with rest in bed, careful and well selected regimen of diet, and more often than otherwise your patient will have cause to thank you for your kind and skilful treatment, and you will feel you have done a duty, notwithstanding modesty, perhaps, suggests to you to let Nature have her way in expelling the secundines. The neglect of small details, which go to make up the sum total of a treatment, often brings about disastrous results.

I hope that this paper will not be considered extremely elementary. But I cannot help feeling that in our search for strange and unusual morbid phenomena we are apt to forget first principles. An occasional review of the field, and a comparison of experience, may be of value to all of us. After giving the case a clear diagnostic investigation, then prompted by the information thus gained do a duty, falter not—do not even let the entreaties of the patient lead you astray.

SOME EXTRA-GENITAL AND OTHER CHANCRES.*

BY I. N. BLOOM, A.B., M.D.,

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I desire, with one or two exceptions, to report those cases coming under the above caption which have occurred recently in my private practise.

I have from time to time during the past ten years reported about thirty extra-genital chancres to this and other medical societies in this city, and could easily have extended the number to fifty without including those I have treated in my clinic.

L. Duncan Bulkley, in his invaluable book "Syphilis Insontium," has shown that extra-genital chancres so far from being rare comprise about ten per cent. of the total number. He has compiled a list of them, and the following is his table. From the clinics of Europe he gathered a total of 7123 cases. Total number of genital and perigenital chancres, 6770; total number of extra-genital chancres, 353—nearly five per cent. When to this is added the number of children accidentally infected through vaccination, and others from tattooing, etc., he thinks ten per cent. a fair estimate.

From all available clinics, the following are the sites of the 353 extra-genital chancres; the second table represents a total of 9058 gathered from all sources.

	First Table.		Second Table.
Lips	184		1810
Breast	41	and nipple	1148
Fingers	33	and hands	462
Tongue	17		157
Throat	16	oral and nasal	264
Nose	8		95
Chin	7		146
Eyelids	7	and conjunctiva	372
Cheek	6		145
Buccal cavity	6		734
Neck	4		47
Forehead	3	and temple	37
Unclassed	21		
	353		
Tonsil			307
Trunk			100
Anus			87
Perigenital			77
Leg and thigh			73
Forearm			59
Gums			42
Ears			27
Vaccination			1863
Cupping and phlebotomy			745
Circumcision			179
Tattooing			82
Total			9058

* Read before the Louisville Clinical Society.

It must not be forgotten that as far as the surface of the body is concerned, and those parts which can be subjected to visual inspection, as the throat, pharynx, etc., a chancre may occur at any place where the syphilitic poison can enter; there are few parts of the body which have not shown this, as may be seen from the foregoing list.

Most of these cases are truly cases of syphilis of the innocent, and may be contracted by direct or mediate contagion. I saw in Vienna a chancre of the great toe, the result of a bite of a syphilitic in a cheap lodging-house where the sleepers, packed like sardines, lay, one with his feet in close proximity to his neighbor's head.

Some years ago I reported the case of a patient of the late Dr. Palmer and myself. This patient, a blacksmith, struck a man on the teeth, abrading his skin; in due time induration took place, and the sclerosis as shown in the photograph resulted. These examples of direct contagion are so numerous that I need give no others. The indirect, as through drinking-vessels, shaving-brushes, pipes, etc., are equally familiar, and I need scarcely mention the following case as an example. I am sorry I cannot give the date, as I only saw the patient twice and did not make such notes as I usually make.

An actor at Macauley's Theater, during his professional stay in Louisville about five years ago, presented himself with a typical chancre of the lip. The diagnosis had been made before he presented himself to me, and was not difficult, as the typical appearances were present. Close questioning revealed the following as the probable origin: The part in the play taken by my patient was that of a tramp; one of his duties was to take up the lighted cigar left by a fellow actor and puff at it for some time. He informed me that this player was known to be in the florid stage of syphilis.

There is, however, a large class of cases in which it is impossible to find out how the virus reached the lymphatic circulation in spite of the thorough willingness, even anxiety, of the patient to assist you. In this part of the country, comparatively thinly settled and with few of the bestial vices of European and Eastern cities, it is seldom that we need suspect unnatural intercourse as a cause. Indeed, of at least twenty cases of chancre of the lip

that I have seen in this city, in only two did I ever see a case in a prostitute or any one whom I could possibly suspect of the habit above alluded to.*

Bulkley reports cases which were derived from a pin-point where the pin was carried in the mouth (milliners), but it seems to me that this must be conjecture in many cases.

In the case of the chancre of the tongue which I reported a year or so ago, the young man was one I knew intimately since he was a baby, and no inquiry however carefully made could elicit the origin of the disease.

And so, too, it is of common occurrence that we must treat syphilis without even knowing the site of a chancre which has existed without exciting the attention of the patient. We must remember that wherever the chancre may occur, it differs from those of the genital tract only in its relations to the vascularity and lymphatic supply of the parts affected. The greater these, the greater the round-cell engorgement—the greater the induration of the lesion itself and the neighboring lymphatic glands.

The chronology of the extra-genital chancre does not differ from that of the genital. I would count back twenty-one days from the first appearance of the chancre as the average probable date of infection; and I would look for the first so-called secondary effects about forty-five days after such appearance. I do not believe, and my experience bears me out in it, that the syphilis resulting from an extra-genital sore differs in severity from that of the genital. I find those suffering innocently are often less willing to subject themselves to rigorous and continuous treatment, and in these severer sequelæ are to be expected.

During the last ten days I have had four interesting cases, which I will briefly recite:

Case 1.—Mr. S—— is twenty-four years of age, a bookkeeper, and above the average in intelligence. He is temperate as regards alcohol, tobacco, and venery. In the fore part of January he noticed two sores, exactly alike, and appearing within two or three days of one another. The first one was over the eleventh dorsal vertebra; the one that followed in a few days appeared a little to the left, and an inch above the symphysis pubis in the hair surrounding it. Both were elevated and indurated. The former had practically disappeared when I saw him, while the latter was healed in the center, the edges elevated, and surrounding induration gone. The physician attending was in doubt as to the nature of the trouble until the outbreak. I do not know what treatment the patient received, but the following condition was noted in my prescription book, May 7, 1898: Pustules in scalp, large lenticular papules at junction of hair and scalp, two ugly one-cent sized moist papules on hard palate, and large membrane-covered mucous patch on the upper lip, left side; cervical and inguinal adenitis, no epitrochlear; diffuse papular exanthema on trunk and abundant moist papules *ad anum;* a few discrete papules on thigh, but none on legs, palms, or soles.

The patient can give no information as to the source of the contagion, although he would gladly do so. I will add that the patient was brought to

* The patient exhibited, who has a typical chancre of the upper lip, is a prostitute of the better class, and the closest questioning elicits no history to point to contagion except by kissing.

me by his friend, who came to me in June, 1896, and who has been my patient ever since. In his case the initial lesion was on the left side, near the middle of the upper lip, the efflorescence was blooming, and in the right groin low down was a collection of moist papules. This young man had no idea of the source of his contagion.

Case 2.—On May 11, 1898, Miss M. M——, an Irish servant-girl, presented herself with a chancre of the lower lip a little to the left but involving the median line. It had first been noticed, she said, three weeks before. It was denuded of mucous membrane, bled when the dry cloth over it was removed, was about the size of a penny piece, and the induration, not visible but palpable, extended around it to an extent half as large as the lesion. There was but one enlarged gland, and that at the angle of the jaw on the left side. This was as large as a walnut and not painful to the touch. She refused a corporeal examination, promising it for her next visit, but said there was no breaking out on her body. By close questioning she said that she kissed her sweetheart freely and frequently, and that he had sores in his mouth and had had for some time; the nature of these she did not know. I will report on this case again.

Case 3.—This case is rather interesting on account of the chronology as well as the site of the chancre. Mr. S—— first came to me on the 8th of May, 1898; he is thirty-nine years old, married, and exposed himself to infection twice—on February 29 and March 15 of this year. He has had gonorrhea a number of times, the last case two years ago. About the end of March or the beginning of April he noticed a slight urethral discharge, not accompanied at first by pain. This discharge increased, and he used a "favorite prescription," with the result that pain appeared as a factor and a posterior urethritis followed. When this subsided he felt a nodule in and surrounding the glandular portion of the urethra, for which he consulted a physician during his temporary stay in Evansville, Ind.; the latter told him he suspected urethral chancre and sent him to me. I found a large induration in the urethra a half-inch or less back of the meatus, and involving most of the glans penis back to the corona. The lips of the meatus were glued together, and when separated and the urethra stroked showed a small amount of sero-mucous discharge. This I took on two slides, passed through the flame, and gave to Dr. Vernon Robins for microscopical investigation. The foreskin was retracted and showed an edema-indurativum which caused no inconvenience. From one-half to an inch behind the corona on the dorsum of the penis, median line, was a most exquisite indurated bubonulus, the lymphatics of which could be traced to the groin on both sides. There was moderate inguinal adenitis. Owing to lack of time I did not strip the patient, but requested him to come on the 10th. I was so sure of the diagnosis, however, that I at once put him on modest doses of protiodide of mercury. The patient assured me he had no outbreak. On Tuesday I stripped him and found the back covered with a papular syphilide, evidently one that had been there a week; large papules on arms, legs (upper), and buttocks; pot-belly and chest free; cervical adenitis; no mucous patches nor palmar nor plantar syphilides; on his bald head a dozen or more maculo-papular efflorescences.

The patient, an intelligent man, occupying a responsible position, had not noticed this outbreak, nor the one which I am satisfied must have first presented itself on his belly and had disappeared. He told me he thought a syphilitic breaking out meant running sores, and when he looked it was for such phenomena.

I saw him again Sunday, May 15; the appearance was much as I have noted, except that the maculo-papules on his bald head had doubled in number and had also made their appearance on his forehead. He was taking five-sixths of a grain of protiodide daily for a week; the urethral induration around the chancre had diminished decidedly, and the bubonulus had become smaller, more succulent, and was in the stage of round-cell absorption.

Dr. Robins found no trace of gonococci, pus or bacteria in the secretion, and will shortly stain for the Lustgarten syphilis bacillus. I am satisfied that the discharge in this case was not gonorrheal, but was from the chancre in the urethra.*

Case 4.—On January 26, 1898, Mr. S. W. C——, of Louisiana, came to me with a chancre of the scrotum. My notes of that date are as follows: Chancre (indurated) on scrotum one inch below penis and half an inch to left of median raphe. It was first noticed about November 20, 1897. Intense macular syphilide on trunk, arms, and legs; mucous patch on left tonsil; inguinal, cervical and epitrochlear adenitis. Eruption first noticed January 19, 1898. The patient remained with me two weeks, and then returned home with the eruption only faintly visible. A letter received April 19, 1898, reports him doing well on one and a half grains protiodide of mercury daily.

In Taylor's work on Venereal Diseases, page 552, appears an illustration of chancre of the scrotum which is an exact counterpart of this case, except that the lesion occurred on the right side instead of the left as in my case.

Case 5.—The subject of this case is a girl eighteen years of age, presenting a more typical illustration of extra-genital chancre than we usually see. She told me that the sore upon her lip appeared eight weeks ago, and she thought at the time it was simply a (so-called) fever blister. There was at first apparently no induration, and its appearance as a typical chancre did not develop until three weeks ago. At that time it grew larger, became indurated, reaching more than its present size. She says that it was much larger than this a week ago. The reason I speak especially of the dates is on account of the chronology of the disease. I put her through a careful examination, and there is no sign of the exanthema, no suspicion of it, although there are several enlarged glands about the angle of the jaw and the neck.

The patient has a large, indurated, elevated chancre of the upper lip, on the central part of the right portion, extending quite to the median line. The glandular enlargement in this case is interesting, and it contrasts strongly with one of the previous cases reported. In that case there was but a single enlarged gland; in this case all the cervical glands are more or less enlarged, with one very large gland at the angle of the jaw on the affected side.

This case is of especial interest to me in view of the marked projection of the chancre; you could amputate it and take off one-tenth to one-eighth of an inch before you would make it even with the rest of the lip.

* No Lustgarten bacilli found.

As a rule I wait for the outbreak upon the body before instituting any treatment—I may say this is almost my universal rule; and if this girl had an insignificant chancre which did not have an ugly look like this, I would wait in her case. But with an appearance such as is presented here, and considering her anxiety to get rid of it—she would rather get rid of the unsightly sore and have the exanthema than to wait for the exanthema to appear—I shall put her upon mercury at once. I have given her protiodide of mercury in ¼-grain doses, which she will take at the beginning one after each meal. No one can tell at the beginning of treatment what the dosage of mercury in syphilis should be. I shall begin on the quantity stated and increase or decrease the amount as she can stand it, watching the progress of the case carefully. Later I may give her as much as 1½ or 2 grains a day; it may be necessary to give much less. If inunction were practicable, I would, of course, prefer it. Locally I shall apply white precipitate ointment.

So far as the history is concerned, in relation to the manner in which this chancre was contracted, the patient admits the probability that it was contracted by kissing, and denies any other. I believe this is the way in which the poison entered.

Major J. F. Clark, of the army medical service, in a recent letter to the *Philadelphia Medical Journal*, bears testimony to the invaluable service of the Red Cross Society at that place. He says: "No one should write from the front without giving great credit to the Red Cross Society for the great work it is doing. Without the aid of this society it would have been difficult to care for the sick in this hospital. Each day the Red Cross gives us fifty gallons of milk, two thousand pounds of ice, thirty dozens of eggs. Besides this it has built for us store-houses, floored our tents, given us hundreds of night-shirts, pajamas, pillows, sheets, buckets, bedpans, and dozens of other articles necessary for the care of the sick. In military channels the stream of supplies flows slowly and with many stops and much formality, but Dr. Kent, who represents the Red Cross here, gives freely and without delay. He has no regulation that prescribes how many bedpans one division must use, but gives all that are needed. This week, with the people of Jacksonville furnishing the motor power, he is going to put electric fans in all the tents."

More people over one hundred years old are found in mild climates than in the higher latitudes. According to the last census of the German Empire, of a population of 55,000,000 only 78 have passed the hundredth year. France, with a population of 40,000,000, has 213 centenarians. In England there are 146, in Ireland 578, and in Scotland 46. Sweden has 10 and Norway 23, Belgium 5, Denmark 2, Switzerland none. Spain, with a population of 18,000,000, has 401 persons over 100 years of age. Of the 2,250,000 inhabitants of Servia, 575 persons have passed the century mark. It is said that the oldest person living whose age has been proven is Bruno Cotrim, born in Africa, and now living in Rio de Janeiro. He is 150 years old. A coachman in Moscow has lived for 140 years.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

A LIBEL SUIT FOR $25,000 DAMAGES.

While the editorial policy of the MEDICAL AGE may at times have been deemed a trifle vigorous, it has in no case been consciously unjust. It has been therefore something of a surprise to find that a suit for libel has been instituted against it. The plaintiff in the case considers his feelings to have been outraged and his reputation to have been besmirched, whereby he has sustained damages which he estimates in the goodly sum of $25,000. The individual who has thus suffered at our hands is no less a person than William Smith, M.D., D.O., one of the founders and apostles of that new medical faith known as Osteopathy.

Dr. William Smith scarcely seems to possess the moral hardihood needful in the promulgator of a new faith. The acute suffering he has experienced from our gentle criticism reveals him as the possessor of a hyperesthetic temperament which must certainly unfit him for being the preacher or the defender of new beliefs. A brief perusal of Dr. Smith's bill of complaint reveals the nature of his injuries.

In our issue of July 26, 1897, the first number of the new *Journal of Osteopathy* was thus greeted:

> Ever since the "contagious form of feeble-mindedness" known as osteopathy announced itself, we have been expecting to see a journal devoted thereto. It has at last arrived. On the cover is the Madonna and Infant, the nimbus about the head of the former being the motto "Science, Truth," while that of the latter adds, "and Osteopathy;" there are also most appropriately a ram's head, two skulls, and a portrait of the founder of the "science," who manifestly posed for the skulls as well, for there are the same high cheek bones, the same vacuous expression, and the same flattening on one side of the head.

Why should a man of such a lamb-like disposition as Dr. Smith take it hard that he or the founder of osteopathy was suspected of posing for the pictures of the skulls? Is it that he is disappointed that he was not himself accused of sufficient virility to pose for the portrait of the ram?

Still further the article complained of reads:

> There are numerous illustrations, and every paper bears a portrait of its author—a collection of faces one rarely sees outside of an idiot asylum. It is needless to say that they are all "doctors" of osteopathy—for everything goes in this "science." In fact, osteopathy appears to be the Still family, for on one page we find them all grouped together, and all write themselves doctors, down to the youngest "kid."

These reflections do not all pertain to Dr. Smith, and surely he has troubles enough of his own not to make all the criticisms upon the Still family his own affair.

In our issue just quoted certain criticisms were also made upon the professional candor of "Bill" Smith, M.D., D.O., Demonstrator of Anatomy and Lecturer on Symptomatology and Surgery in the American School of Osteopathy. Attention was directed to a case cited by Dr. Smith which had come for treatment by the Osteopaths. "For three months before his arrival he had passed no urine." The patient was relieved by catheter of seventy-two ounces of stale urine. In thirty hours five gallons more urine was voided. Is not this case enough to substantiate Dr. Smith's reputation for ignorance and mendacity?

If Dr. Smith desires to collect his $25,000 perhaps he will honor Michigan with a visit for that purpose. It would, however, be wise that he carefully consider the route he travels to reach this State. In Illinois a reward of $500 is offered for the apprehension of an individual named William Smith, and he might be taken, and in truth will be taken, for the party. Against this individual a true bill was found by the Grand Jury on February 3, 1898, for "unlawfully receiving from Henry Ulrick, for the sum of $85 lawful money of the United States," three dead bodies. The indictment recites that he obtained these bodies by representing to Albert M. Lange, Warden of the Cook County Poorhouse, that he was next of kin to these paupers. Prior to this, in December, 1897, a true bill was found, indicting Henry Ulrick, John Ludes and William Smith for burglary. When the governor of an important State seems desirous of entertaining Dr. Smith at public expense, it can easily be imagined that when he travels he will have difficulty in selecting a route which will be free from the inconvenience of uncertain interruption.

The devotees of that "contagious form of feeble-mindedness" known as osteopathy cannot perhaps be congratulated upon the character or intelligence of all the founders of their faith. The victims of superstition, medical or otherwise, ultimately however find a remedy for their false beliefs, and can take comfort in the thought that however deep their errors, truth will ultimately emerge triumphant.

EDITORIAL NOTES.

A Spurious Form of Benevolence.

The return of the soldiers has been accompanied by a wanton display of all sorts of random and spasmodic attempts at benevolence. The trains conveying the sick have been boarded at every available point by well-meaning and kindly disposed women, and the fever-stricken occupants have been plied with milk, grape-juice, pies, peaches, pop-corn and peanuts until it is really surprising that rupture of the intestines and other grave maladies have not resulted. The hospitals are besieged with charitably-minded people, in whom the desire seems paramount to feed the sick, or give them mild jags with

whiskey and cordials. The whole affair must have raised the question in many minds whether this kind of sentimentalism is not another form of selfishness, and if the satisfaction derived from it is not due to a subtle form of flattery peculiarly gratifying to the *amour propre* of the pseudo-philanthropist.

The Colonization of the Tropics.

The fever-stricken condition in which our troops have returned from Cuba and Puerto Rico must have raised the question in many minds as to the adaptability of natives of temperate zones to the climates of the tropics. There are few examples which can be quoted of the successful colonization of tropical regions. In Queensland the white population seems to have attained an immunity to local diseases, but the best example is probably that of the Spanish inhabitants of Cuba itself. The European residents in India, China, the Philippines and the tropical regions of Africa return to temperate zones in most instances enfeebled in health and with shattered constitutions. The possession of tropical colonies will lead to some new experiences on the part of American citizens who may make their residence there.

The Cigarette Question.

The *New York Medical Journal*, speaking editorially of the cigarette question, says that while the medical press takes a moderate and sensible view of the question, the lay press does not; and *The Lancet* Commission of Experts, which examined many brands of cigarettes, reported that in no case did it find any trace of opium or any unclassified alkaloid, or any trace of chlorine or arsenic, though some cigarettes showed a faint trace of copper, due, no doubt, to the metallic label on the wrapper. That cigarette smoking is especially injurious to a healthy adult is entirely false. Like many other things, if there is a constitutional taint, it may bring it out when tobacco is used to excess; but that it is essentially more injurious in the form of cigarettes than in any other form has not been proven.

Immunity to Insects' Stings.

It was announced by Dr. Langer at the Congress of German Naturalists that bee-keepers in his district acquired an immunity to bee-stings, and in many cases transmitted this immunity by inheritance. The sting is found to be due to an animal alkaloid. It would much sweeten the enjoyment of holiday life in camp and forest if a protective inoculation could be given for the mosquito poison, and it is to be hoped that Dr. Langer's investigation will produce something of this nature.

ITEMS AND NOTES.

THE army hospital corps is greatly in need of recruits.

THE Marine Hospital Service has established a hospital at Honolulu.

THE Paris Academy of Sciences has made Professor Rudolph Virchow an associate member.

A NEW cure for yellow fever is said to have been discovered by Dr. Calvas, of Rio Grande, Brazil.

AT a late meeting of the British Medical Association there were fourteen who registered from the United States.

THE University of Iowa requires of its students a satisfactory examination in mental diseases before receiving their degree.

AT Ottawa on September 27, 28, 29, and 30, 1898, the American Public Health Association will hold its annual meeting.

THE plague in Bombay is again prevailing extensively. During the week of August 13 over one hundred deaths were reported.

A CEYLON physician claims to cure dysentery speedily with drachm doses of ammonium chloride given every four hours with a milk diet.

THE American Association of Obstetricians and Gynecologists held its annual meeting at Pittsburg, Pa., September 20, 21, and 22, 1898.

THE first Italian National Congress of Forensic Medicine will be held in Turin early in October under the presidency of Prof. C. Lombroso.

THERE are more blind people in Russia than in all the rest of Europe combined, owing, it is thought, to the long snow season and the uncleanly habits of the people.

A MILITARY HOSPITAL is to be established by the United States Government in Honolulu. It will be located in the pavilion upon the grounds known as Independence Park.

A PENSION of $500 has been awarded by the Russian branch of the Red Cross Society to Mr. Henry Durant, the initiator of the society, who is now in straitened circumstances.

IN England the professional classes are distinctly taller than those of the lower orders. It is a fact that the Fellows of the Royal Society average taller than any other class of men.

DR. H. R. CARTER, of the United States Marine Hospital Service, has been delegated to Santiago for the purpose of establishing a disinfection and inspection plant in that district.

Foreign medical men are permitted to practise among people of their own nationality in Italy, but are forbidden under pain of prosecution and fine to give first aid to an Italian in a street accident.

The tenth annual meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee will be held at Birmingham, Ala., Tuesday, Wednesday, and Thursday, October 25, 26, and 27, 1898.

On the 31st of August the hospital ship *Olivette*, which was lying near the quarantine station at Fernandina, Fla., sank. The hospital corps and the crew, numbering in all eighty persons, escaped without injury.

Dr. Laura Hughes, of Boston, who has gone to Camp Wikoff with a corps of ten nurses to care for the sick soldiers, is a woman of wide hospital experience, and is the first woman physician to be sent from Massachusetts.

From the Klondike comes the information that at Dawson City there are only eight or ten registered practitioners, while more than 200 are practising without registration according to the laws of the Northwest Territory.

Mr. Otey, the representative of Virginia, has introduced a bill into the United States Congress providing for the appointment of a brigade dentist for each brigade with the rank of major, and one for each regiment with the title of captain.

During the war the navy lost by death 2 officers and 18 men, and 3 officers and 40 men wounded; in the army 23 officers and 231 men killed, and 87 officers and 1316 men wounded. The exact number of deaths due to disease cannot as yet be estimated.

Alcohol consumption in the United States is on the decrease. Compared with 1888 the total consumption of alcohol in 1896 was one gallon per capita less. This indicates that 70,000,000 gallons less of alcohol were consumed in 1896 than in 1888.

Prof. Von Bergman, president of the new Berlin Ambulance Society, with a view to insure uniformity of method in the dressing and first treatment of wounds, burns, fractures, etc., has given free courses of lectures to 800 doctors who are members of the society.

The University of Paris now grants a new degree, namely, that of Doctor of the University of Paris. It will be granted to students of science or of medicine on similar conditions to those of the German Ph.D.—*i.e.*, composition of a thesis embodying original research.

For some time past the establishment of another university to be located at Birmingham has been agitated. It has recently received an endowment of nearly $500,000. The proposed university is to be known as the Midland University, and will include a college of medicine.

According to Otto Ammon, the anthropologist, the brain of the late Prince Bismarck weighed 1867 grammes, and consequently exceeded that of any

known genius. Cuvier's brain weighed 1830 grammes, Byron's 1807, Kant's 1650, Schiller's 1630, and Dante's 1420. The average weight of the brain of an intelligent European is only 1380 grammes.

THE Medical Society of New Jersey is said to be the oldest State society in this country, the one hundred and thirty-second annual meeting being recently held at Asbury Park. During the revolutionary war — that is, from 1775 to 1781—no regular annual meetings were held, "as most of the members of the society were actively engaged in the war."

THE number of deaths at Santiago has already fallen from an average of 103 to one of 37 a day, due to the good effect of American methods. A board of inspectors has had the streets cleaned, and a thorough house-to-house examination made, and the inhabitants are being educated up to the point of looking upon filth as something undesirable and inconvenient.

IN a Roman hospital recently excavated at Baden, Switzerland, many medical utensils and surgical instruments were found, among them probes, tubes, pincers, cauterizing instruments, safety-pins, bone medicine spoons, silver measuring vessels, jars and pots for medicine—some containing traces of ointment. Fourteen rooms of the building have been excavated.

ACCORDING to Mr. A. W. A'Beckett, assistant editor of *Punch*, the central idea of the hypnotic influence exercised by Svengali, in Du Maurier's celebrated novel, was founded on a case reported in *The Lancet* some forty or fifty years ago. "No less a person than the famous Jenny Lind was able to cause a factory girl without any musical education to sing like a sister nightingale," says Mr. A'Beckett.

THE following is recommended by a German professor as a rapid, cheap and effective way to sterilize drinking-water for armies, on board ship, in unhealthy localities, and for medical and surgical purposes: To a gallon of the water add, first, three drops of the following solution: water 100 parts, bromine 20 parts, potassium bromide 20 parts; and then after five minutes three drops of a nine-per-cent. solution of ammonia.

A GERMAN journal states that after a long search Professor Gerold, of Halle, has found the means of neutralizing the action of nicotine in cigars. During the process of manufacture the leaves of tobacco are steeped in a decoction, the principal element of which is wild marjoram (*Origanum vulgare*). Gerold claims that by this means the deleterious effects of tobacco are avoided, and yet the quality and aroma are not altered.

THE following is one of the sections of the law creating the Florida State Board of Health: "Any person or persons, who shall falsely or maliciously disseminate or spread rumors concerning the existence of any infectious or contagious disease, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than $100 or more than $1000, or by imprisonment in the county jail of not less than three or more than six months."

Dr. Zambaco, in the *Lyon Médicale*, states that he does not believe leprosy is contagious. More than 400 lepers, he says, circulate freely in the streets of Constantinople and are engaged in all kinds of trade, yet they don't appear to give the disease to the inhabitants of that city. Among these 400 lepers some have come from the regions of the Turkish Empire where leprosy always exists, and others are Spanish Israelites who have settled there since the time of the inquisition in Spain.

A correspondent writes to the *British Medical Journal* recommending the use of motor tricycles by medical men in country practise. Petrol or doubly distilled benzoline is the oil used, and it costs about 24 cents per 100 miles to operate the tricycle. The speed can be regulated anywhere between four and twenty miles an hour by means of a small lever immediately in front of the rider. Any ordinary hill can be climbed by it, but a little pedaling is necessary to ascend a very steep incline.

A pocket-knife blade embedded in the skull and projecting for a quarter of an inch into the cranial cavity was an unlooked-for discovery at an autopsy in the Pathological Institute of the Charité (Virchow's laboratory) in Berlin not long ago. The blade had wounded the outer, cellular or periosteal layer of the dura, but had pushed the fibrous layer before it. There had been no inflammatory reaction and no symptoms seemed to have occurred. There was no history to account for the presence of the knife-blade.

The Council of Hygiene of Bucharest recently appointed a committee to prepare a handbook of advice as to the means of preventing phthisis. The committee has recommended, among other things, that persons suffering from the disease be excluded from workshops and placed in sanatoria, where they should be treated and maintained at the expense of the municipality. With the object of giving effect to this recommendation steps have already been taken to obtain buildings to be transformed into a sanatorium. A special medical inspector is also to be appointed, whose duty it shall be to discover cases of tuberculosis in workshops and factories.

Rosery (*New York Medical Journal*) states that the greatest number of births takes place in the early hours of the morning, and the greatest number of deaths in the early hours of the afternoon. His conclusions were drawn from 25,000 deaths occurring at Cremona from 1866 to 1880, and from 36,515 births at Rome occurring between 1894 and 1897. The author seeks an explanation of these facts in the variations of activity of the material exchanges during the day; carbonic acid, which is more abundant during the earlier hours of the day, being an excitant of uterine contraction. The sympathetic he considers would be ordinarily more active at night, because it is not then controlled by the brain and spinal cord.

Recently a small boy in London, who was caught swinging on a druggist's blinds, was liberally dosed with an infusion of quassia. The druggist was properly fined, says *The Lancet*, on the following grounds: the next mode of punishment might not be so harmless as quassia, and the executioner might

be less instructed in therapeutics. Again, an element in this way might be imported into the punishment of children which should never be tolerated, to wit, the element of nervous terror. "We know and the druggist knows," says our contemporary, "that the solution of quassia was as harmless as, say, many sorts of table beer, but the boy did not know it. He might easily believe that his disagreeable sensations were the prelude to impending death from poisoning, and a fond mother might possibly support the view, with the result that much more pain, and of a different sort, would be caused than was intended."

THE doctors of Sweden never send bills to their patients. If you have occasion to call a physician you will find him not only skilful in his profession, but a highly educated and honorable gentleman. You will also have a proof of the honesty of the Swedes and their friendly confidence in each other. What you shall pay your physician is left entirely to your own choice. The rich may pay him liberally, whether they have need of his services or not, if he has once been retained by them. The poor may pay him a small sum, and the very poor pay him nothing. Yet he visits the poor as faithfully as he does the rich. A similar custom prevailed up to the middle of the present century in some of the most remote portions of the Highlands of Scotland. There the doctor collected his entire year's bills on a certain market day in summer, getting perhaps five or ten pounds from the larger farmers, but only as many shillings from the poorer crofters.

THE associate director of Yale University, Dr. Seaver, gives the following physical measurements (*Scientific American*) of the Yale freshman class, whose compulsory work was begun this year: The average age of the class at the time of measurement was found to be nineteen years one-half month. The oldest man in this class was thirty-three years and youngest fifteen years nine months. Average height, 5 feet 7.5 inches. Tallest member of the class, 6 feet 3½ inches, shortest 5 feet $\frac{3}{10}$ inches. The average weight, 134.2 pounds, the heaviest man being 215 pounds and the lightest 101½ pounds; girth of chest, normal, 34.4 inches; girth of chest, inflated, 35.8 inches; girth of biceps, 11.5 inches; girth of neck, 13.8 inches; girth of head, 22.4 inches; girth of waist, 28.1 inches; girth of thigh, 19.9 inches, and girth of calf, 13.7 inches; capacity of lungs, 4 cubic liters, or 240 cubic inches.

Comparing these measurements with those of the freshman class at Yale fifteen years ago, Dr. Seaver finds the average freshman strong physically at almost every point, his lung capacity having risen from 225 to 240 cubic inches. This is attributed to athletic training in the preparatory schools, where Dr. Seaver says ten men train where one trained fifteen years ago. There are but ninety-seven men, or thirty-eight per cent., of the freshman class who have normal eyes. Seventeen others have one normal eye, the other eye being abnormal to the extent of at least twenty-thirtieths. Thirty-eight men, or about thirteen per cent., used glasses before entering college. No figures are obtainable for discovering whether there are fewer men with normal eyes now than ten years ago, but it is believed that this is the case.

NEW PUBLICATIONS.

WOUNDS IN WAR.

Among the seasonable works must be mentioned this volume, which deals with the most modern conceptions on the subject of military surgery. The work is based upon experiences acquired in the foreign service of the British Army. Now that our own little war is over there will doubtless be a great influx of works dealing with the wounds and accidents of modern warfare. Until such is forthcoming the present work will be found an admirable guide for those who have to treat the wounded. The work traverses the whole field of military surgery, and in addition supplies learned chapters on trajectories and the laws governing the impacts of bullets. The section dealing with abdominal surgery may be quoted as an example of the modern and clinical spirit which pervades the book. The work contains a vast amount of matter of an exceedingly interesting character. It will be read with avidity at the present time when interest in matters military is paramount.

Wounds in War. The Mechanism of Their Production and Their Treatment. By Surgeon-Colonel W. F. Stevenson, Professor of Military Surgery, Army Medical School, Netley, England. One volume of 588 pages, 8vo, profusely illustrated. Muslin, $4.00 net. New York: William Wood & Company.

MANUAL OF SURGERY.

The aim of the authors of this text-book has been to avoid giving the student more material than he can master during his college career. The essential facts of surgery are therefore related in a succinct and concise form. The bacteriological data, which now form such a formidable factor in modern surgical pathology, have been reduced to their essential limits. The work is thorough and complete and in a form in which its utility to the student will be paramount. The text is clear and lucid in style and is copiously illustrated. The work will doubtless receive its due proportion of patronage from the student seeking the best manual to use during the forthcoming college sessions.

A Manual of Surgery. For Students and Practitioners. By William Rose, M.B., B.S. Lond., F.R.C.S., and Albert Carless, M.S. Lond., F.R.C.S. One volume, 8vo, of 1162 pages, very profusely illustrated by wood engravings. Extra muslin, $5.00 net; leather, $5.75 net. New York: William Wood & Company.

SCHAFER'S HISTOLOGY.

Schafer's Histology, which is now in its fifth edition, is one of the few text-books on this subject which has steadily gained in favor among the students of that branch. This edition has been thoroughly brought up to date, and some fifty pages, together with a large number of engravings, have been added. The chapters on the Blood, Bone and Nervous System have been enlarged. The book also supplies directions for microscopic examination of tissues, and will be found useful to the practitioner as well as to the student.

The Essentials of Histology. By Edward A. Schafer, F.R.S., Professor of Physiology in University College, London. New (fifth) edition, revised and enlarged. Octavo, 350 pages, with 325 illustrations. Cloth, $3.00 net. Philadelphia and New York: Lea Brothers & Co.

PHYSIOLOGICAL CHEMISTRY.

Favorable notice has already been accorded Dr. Novy's first edition of his admirable text-book for the laboratory. The new edition has been enlarged and almost totally rewritten. The student will find full and ample directions for dealing with foodstuffs and the fluids and secretions of the body in the chemical laboratory. The work will doubtless prove useful to others than the classes in the University of Michigan, for whom the work was primarily designed.

Laboratory Work in Physiological Chemistry. By Frederick G. Novy, M.D., Professor of Hygiene, University of Michigan. Ann Arbor: George Ward.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

The Application of Formalin in Non-operative Carcinomas.

Professor Bayer, of Prague (*Die Arztliche Praxis*, 1898, No. 6), in a case of recurrent carcinoma of the right inguinal gland, used an application of eight-per-cent. solution of formalin. After fourteen days a moist crust, an inch thick, could easily be removed. The granulating tissue showed a small rest of the neoplasm remaining which was treated in the same way. In the meantime the enlarged glands on the left side did not increase in size. The man died of a profuse hemorrhage from the right femoral artery, caused by an erosion due to the necrosed tumor. At the post-mortem no trace of the tumor could be found on the surface of the ulcer.

The details of the treatment are as follows: The surrounding parts are protected with an ointment. Thoroughly soak the ulcer in an eight-per-cent. solution of formalin, then use gauze pads saturated in a four-per-cent. solution, changing daily until a firm scab is obtained. Treat antiseptically until the scab drops off. In case any rests of the neoplasm are found after removal of the crust, treat in the same way.

The Fluorescent Screen for Intrathoracic Growths.

In volume viii, part 1, of *Archiv für Laryngologie*, Dr. Albert Rosenberg, of Berlin, has published an interesting analysis of twelve cases of intrathoracic growths, which caused some involvement of the respiratory tract, either compression of the trachea or some form of vocal cord paralysis. He considers the actinoscopic picture of great value as corroborative evidence in the diagnosis of malignant and benign intrathoracic growths. The density of the shadow one sees on the fluorescent screen varies, and in a general way varies according to the specific gravity of the tissue through which the rays are projected. For example, a lymphoma having a much lower specific gravity would furnish a less intense shadow than a more dense carcinoma, although in a lymphoma in which calcification had occurred in certain parts the corresponding portions of the shadow would be more intense. In aortic aneurism the shadow was found to have a definite characteristic shape, its periphery having the form of an ellipse or a circle, and pulsating equally in every direction. This last feature, the character of the pulsation equal in every direction, was a point found to be of value in the differential diagnosis. For instance, an esophageal carcinoma might be attached to the aorta and pulsate with it, but the pulsation shadow in this event would not be symmetrical in every direction. As an example of this point the writer quotes a case recently reported by Professor Chiari. On the fluorescent screen a pulsating tumor of the size of a small apple appeared. Some of the observers were inclined to call this an aneurism. It did not, however, pulsate on the right side, but only on the left, and not

quite with the heart pulsation, but a trifle later. The post-mortem section in this case showed a carcinomatous mass attached to the aortic arch.

In order that movements of the ribs and thorax might not be confused with pulsations of the vessels, it was found best to have the patient take a long inspiration, then hold the breath during the examination. Not only did this exclude thorax movements from the screen, but the expansion of the chest separating the ribs gave a clearer picture of the heart shadow.

The writer also lays stress on the importance of passing the rays from before backward, from the back forward, and from both sides. If the apparatus is in front of the patient, the screen at his back, a tumor close to the anterior thoracic wall will cast a much larger shadow than when the patient's relation to apparatus and screen is reversed.

In conclusion there are many cases in which the actinoscopic rays may aid in the differential diagnosis in intrathoracic growths, but their value in any event is corroborative rather than conclusive.

MEDICINE.

Vicarious Urination.

Dr. A. T. Rice, in the July number of the *Canadian Medical Review*, reports a curious case which he thinks was one of vicarious urination. The patient, the writer says, was thirty years of age, daughter of a farmer. She was of nervous temperament and rather weak intellect, and was attacked about three years ago with cystitis of two or three weeks' duration, the attack being somewhat severe, there being complete atony of the bladder, necessitating the use of the catheter during that period. This attack gradually subsided, though considerable tenderness remained, lasting even up to the time she came under observation. One year after this attack she was again laid up with what this time took the form of involuntary twitchings or spasms of the whole body emanating from the dorsal region, over which portion of the spine there was a good deal of tenderness. These spasms were so severe as to confine her to bed for some weeks. Accompanying this attack there were a number of discolorations of the right leg and thigh extending almost entirely over the limb, but without tenderness. These, after a few weeks, gradually disappeared and the patient regained her ordinary health.

About one year ago the atony of the bladder returned and the patient was again obliged to resort to the use of the catheter three times a day, about half an ounce being drawn each time. During this time her general health suffered severely, the bowels being extremely constipated, appetite poor, mucous patches in the mouth, and breath foul. No amount of treatment seemed to have the slightest effect upon these abnormal conditions. The twitchings or spasms also returned and continued throughout.

About the first of August the feet began to swell slightly, though not sufficiently to incommode her to any extent. At this time a peculiar complication set in, and the main one to which the author wished to call attention. The secretion of the bladder gradually diminished, but was compensated for by an

exudation of fluid from the anterior portions of the lower limbs between the knee and ankle. This fluid was voided regularly three times a day, the amount gradually increasing, the average being about thirty to forty ounces per day. The fluid simply oozed from the skin without any abrasion of the skin or discoloration or even the slightest edema being present. The patient would realize that the flow was about to begin, and would place her feet upon a stool and a dish beneath her heels. The author happened to be present at one time when it began, and can therefore vouch for the correctness of the statement. The fluid was of an amber color, similar to healthy urine, specific gravity 1010, an absence of albumen or sugar; it had a strong smell of urine upon boiling, with a distinct ammoniacal smell after standing. Examination also showed the presence of uric acid. After this symptom showed itself the patient's health rapidly improved and became fairly well established, so that she had little to complain of except the inconvenience caused by this peculiar phenomenon.

Aid in Exhalation.

The mechanical aid to exhalation which is so useful in emphysema, mild asthmatic attacks, and many kinds of chronic bronchitis, can be employed by the patient without the help of others. The patient lies on the abdomen, crossing the arms over the back. A small pillow is put under the upper part of the chest, and a second one under the forehead. The soles of the feet should be braced against the lower end of the bedstead. The patient then takes three long breaths; with every expiration he stretches the flexed legs and forces the upper part of thorax against the pillow. In a chronic bronchitis the efficiency of this method can be demonstrated by the increased loudness of the râles after several breaths are taken.—*Zeitschrift für Dietet. u. Physiolog. Therapie*, Bd. i, H. 1.

THERAPEUTICS.

The Treatment of Diarrhea.

Dr. G. C. H. Meier, in the *New York Medical Record* of August 13, 1898, says that the treatment of the simple forms of diarrhea, in contradistinction to those which accompany constitutional diseases, such as typhoid, cholera, phthisis, etc., has undergone a marked change within the last ten years. Especially is this true of the various forms of infantile diarrhea, which are much more amenable to treatment than they were when he first entered the practise of medicine. The treatment by astringents was then very much in vogue, and bismuth, tannic acid, subacetate of lead and opium were the specifics with which we attempted to check all kinds of intestinal discharges. With the discovery of the fact that nearly all of these disorders are due to certain microbes or their toxins, our reliance on these remedies has been greatly modified and their use has been restricted to the more chronic and subacute forms of intestinal disorders.

From a clinical point of view we may group all diarrheas into two large classes, namely, the acute and the chronic forms. The very first object in the management of an acute gastro-enteritis should be directed to rendering the whole intestinal tract as aseptic as possible. Instead of running the gamut of astringent remedies, as was formerly the case, we now withhold, first and foremost, all fluids or foods which are liable to fermentation and which may become a medium for the propagation of the various bacteria concerned in poisoning the system, thus starving the microbes out, so to speak; at the same time we must endeavor to clear the whole alimentary tract of any undigested and irritating particles of food, which is best accomplished, in the author's experience, by small but not too small doses of calomel, repeated hourly until the characteristic calomel stools make their appearance. In the meantime the patient should be fed on absolutely nothing but barley-water, rice-water, or toast-water, either one or other according to his preference. The most efficient and blandest nutriment in these cases, and that which as a rule is retained when everything else is vomited, is a solution of the white of one egg in about ten ounces of boiled or sterilized water to which a pinch of salt has been added. This is usually eagerly imbibed by the little patient, and if the stomach can retain anything at all, it will be this solution of egg albumen.

In conclusion the writer says that the use of intestinal astringents in diarrhea must be judiciously timed, and although they are invaluable remedies in this affection, we must before employing them be certain that the alimentary canal is perfectly free from foreign and fermenting material, otherwise we simply aid the retention of matter which Nature is attempting to throw out because it is harmful. Do not prescribe any drug or remedy indiscriminately, but use your reasoning powers as to the time and the stage of the disease when it is apt to exert its specific qualities; this applies as well to astringents in diarrhea as to any other drug administered for the cure of disease. If this is borne in mind disappointment will rarely be experienced in the effects of our remedies, and we shall be pretty well able to predict what success will follow the administration of certain drugs.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,
Microscopist to Harper Hospital, Detroit.

Ehrlich's Diazo-reaction in Urine.

Krokiewicz, of Krakan, in the *Wiener Klinische Wochenschrift*, examined 1105 different cases, of which he made 16,167 tests for Ehrlich's diazo-reaction. He draws the following conclusions: In diseases of the kidneys, not due to tonic medicants containing coloring matters, it is never found. In carcinomas of stomach, liver, esophagus, rectum, pancreas, and uterus, the reaction is negative; but in primary carcinoma of the ovaries it is positive. When found in pulmonary tuberculosis the disease runs a short and fatal

course. This rule holds good also in the incipient stages. Albuminuria and intestinal ulcers in phthisis have no effect on the reaction. The test is negative in phthisis when complicated with nephritis. In tuberculosis of glands or mucous membranes the reaction is occasionally found. It is constant in miliary tuberculosis. In typhoid it is found in the mildest attacks in the first and second periods of the disease. As long as the diazo-reaction is present in urine, typhoid patients cannot be considered convalescent. If in convalescence of typhoid the reaction sets in, it is generally a sure sign of a relapse. The author recommends the test on account of the prognostic value in typhoid and tuberculosis.

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT, MICH.,
Attending Neurologist to Harper Hospital.

The Reclassification of Some Organic Nervous Diseases on the Basis of the Neuron.

In a paper read at the late meeting of the American Medical Association, and published in its *Journal* of July 2, 1898, Dr. Chas. K. Mills discusses a partial revision of neurologic classification along neuronic lines. "The most important part of the present communication," he says, "is to direct attention to the fact that the time has arrived for applying the theory of the neuron, or the nerve cell regarded as an anatomic unit in the classification of the most important organic nervous diseases, and especially many of those which have been hitherto placed under such heads as system diseases and primary degenerations."

Many of the toxemias, inflammations, and degenerations, he thinks, would be better described as neuronic diseases instead of diseases of the brain, spinal cord, or peripheral nerves, as hitherto classified. Systems of neurons are especially prone to attack in these diseases. With tabes should be classed those forms of primary degeneration which single out special nerves, and they should be grouped as sensory neuron degenerations, while the acquired and hereditary spinal ataxias are properly instances of mixed neuron system degeneration, and so on. Provisionally, he tabulates the views of the paper thus:

Embryonal Neuronal Degenerations.—I. Sensory or sensori-motor types: (1) Friedreich's ataxia; (2) hereditary cerebellar ataxia; (3) syringomyelia. II. Motor types: spastic diplegia (some types, as Little's disease). III. Mixed and multiple types: (1) amaurotic family idiocy; (2) dementia choreica (Huntingdon's chorea); (3) developmental insanity (some types).

Acquired Neuronal Degenerations.—I. Sensory types: (1) tabes; (2) tic-douloureux; (3) primary degeneration limited to nerves of the special senses. II. Motor types: (1) progressive muscular atrophy (some types); (2) amyotrophic lateral sclerosis; (3) progressive bulbar paralysis; (4) primary degeneration of particular motor nerves, as of the hypoglossal, facial, trigeminal, and ocular.

For the present it will perhaps be best to place neuronal inflammations and toxemias in a special class, including: (1) acute ascending paralysis (Landry's paralysis); (2) anterior poliomyelitis; (3) polioencephalitis superior and inferior of Wernicke; (4) cortical polioencephalitis of Strümpell; (5) multiple neuritis and neuromyelitis.

Epilepsy.

Dr. C. S. Bond (*Journal of the American Medical Association*, Aug. 6, 1898) considers four cases of epilepsy with especial reference to cause, and seems to lean strongly to the theory that the alimentary tract is far more often the source of the initial irritation than we are wont to think it. He has this to say of the continued use of the bromides in these cases: "If the rationale of this phase of the disease is, therefore, that irritants from the digestive tract, through the blood, come in contact with the cortex, thereby evolving a constant or intermittent efferent current, in like manner controlling the muscles, it would seem the highest service to such patients must come in the prevention of these products from entering the blood-current. Under this view it is difficult to understand how the bromide salts can do more than palliate and thereby perpetuate an evil which is quite removed from the drugged cortex. Indeed, I shall venture the opinion that in many of these cases the bromides do more harm than good: in the first place, by suppressing to a certain extent the evidence of an evil which at that period is most amenable to treatment; in the second place, by injury which these drugs often have upon the already diseased digestive tract; and lastly, the unusual effect which sometimes occurs to the cortex itself."

The four cases reported were aged nine months, six years, seventeen years and twenty-seven years respectively, and seemed to have this in common, that the disturbances were apparently dependent upon some form of irritation along the alimentary tract and all were greatly improved by some form of treatment directed to the increase of elimination, correction of dietary errors, and the establishment of a normal gastric functionation. It may, of course, fairly be queried how large a percentage of all cases of epilepsy are of this type.

The Neuron.

Modern Medicine gives us the following, which may throw a little light on the A-B-C of the neuron theory:

"As a result of the lack of uniformity in the nomenclature of the nerve cell, considerable confusion has arisen in the minds of many as to the proper name to be applied to it and its processes. Some writers have given it the name *neuron*, while others have designated the axis cylinder process as the neuron.

"Professor Michael Foster, assisted by Professor Sherrington (*Montreal Medical Journal*), has recently, in a new edition of that volume of his text-book which treats of the central nervous system, embodied the principal results of the chrome silver and methylene blue methods of staining. In this

book Professor Foster follows Waldeyer in applying the term *neuron* to the complete nerve cell, including its processes. He divides the neuron as follows: (1) The nucleus; (2) the cell body, for which he proposes the term *perikaryon;* (3) the process. The axis cylinder process he calls the *neuraxon*, or *axon*. The protoplasmic processes he calls *dendrites*. For the relation which exists between the neuraxon of one cell and the dendrites of another he proposes the term *synapsis*.

"It is to be hoped that in the near future some uniformity of nomenclature in this particular respect will be adopted by those having occasion to write concerning nerve cells. The application of the term *neuron* to the nerve cell and its processes as a unit, of *neuraxon* to the axis cylinder process, and of *dendrites* to the protoplasmic processes, is a simple and comprehensive means of designating the exact parts referred to, and might be adopted with advantage."

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

A Case of Mastoid Necrosis; Brain Abscess; Optic Neuritis.

In the *Medical News* of August 20, 1898, Dr. Frank S. Milbury reports the case of a married woman, thirty-three years old, who had had more or less discharge from her ear following an attack of scarlet fever in childhood. Violent, uncontrollable headache had continued several weeks, and at the time of first examination there was a temperature of 100° F., a pulse of 115, amnesic aphasia, slight paralysis of the left side of the face and of the right arm and leg, excessive vomiting on the least movement of the head, and edema and redness over the mastoid. Dead bone was perceived by the probe in the tympanum. The ophthalmoscope showed optic neuritis of the left eye. A diagnosis of mastoid necrosis and suppuration was made and operative intervention advised.

At the operation nearly the entire mastoid was found involved, with foul pus in the antrum. The lateral sinus when exposed looked healthy and was pulsating. The moment the brain cavity was entered, pus welled out in large quantities. The wound was enlarged with a rongeur and a probe was passed into the pus cavity about 4½ inches in the direction of the temporo-sphenoidal lobe. The neurologist called in consultation believed the abscess to be between the dura and the arachnoid—a localized purulent meningitis limited by adhesions, pressing on the speech centers. The right hemiplegia was explained by pressure on the adjacent capsule, and the left facial paralysis was due to local involvement of the facial nerve as it passed through the petrous bone.

The after-treatment was long and tedious. For twelve days the temperature ranged from 99.5° to 101° F., and the pulse from 80 to 120, being at times weak and intermittent. Frequent vomiting made the employment of nutrient enemata necessary. The wound healed well and gradual improvement con-

tinued until complete restoration of mind and disappearance of paralysis resulted. The patient was about four months' pregnant at the time of operation, but did not abort.

Monocular Diplopia.

At the thirty-first annual meeting of the Canadian Medical Association, held at Quebec August 17, 18, and 19, 1898, Dr. G. Sterling Ryerson, of Toronto, read a paper on monocular diplopia, which, he said, deserves more attention, being only very inadequately referred to in text-books. It is much more common, he thought, than was suspected. The overlapping of images was present in monocular astigmatism. He recognized three classes of cases: (1) Those dependent upon diseases of the refractive media, such as astigmatism, facets on the cornea, opacities in the humors, punctures or dislocations of the lens; (2) those with traumatism about the zonule of Zinn, or disease of the ciliary body and iris—partial persistence of pupilary membrane is not often a cause; (3) disorders of the central nervous system.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Nitroglycerin in Spasmodic Croup.

In the *Atlantic Medical Weekly* Dr. Marshall states that he has found an ideal remedy in nitroglycerin. Being tasteless and stimulating rather than depressing, it is especially suitable in the spasmodic croup of childhood. As children vary in their susceptibility to this drug, it is best given in small doses frequently repeated, until relief is obtained or the physiological effect of the drug is manifest. Children from five to ten months old can take from $\frac{1}{1000}$ to $\frac{1}{600}$ grain, repeated in five to ten minutes if no effect is noticed. Usually in ten minutes there is marked relief in the dyspnea and general appearance of the child. By repeating these small doses from every fifteen minutes to once in two or three hours the laryngeal spasms are controlled. Sometimes it is not necessary to repeat more than once or twice; at other times it has to be continued at more or less frequent intervals for two or three days.

By this treatment, in the majority of cases, one avoids the unpleasant use of emetics. The immediate and definite results obtained by the use of nitroglycerin are extremely gratifying to the physician and certainly not less so to the parents. Not only in difficult laryngeal breathing of children does nitroglycerin give relief, but many times in adults, especially in nervous and hysterical women. And those cases of dyspnea which would be relieved by bleeding are equally well relieved by free doses of nitroglycerin.

In membranous croup also we get more or less relief, for a time at least, and it may be sufficient to avoid the necessity of intubation. Those cases that it will help and those that it will not cannot be determined except by trial. When it fails you have lost little time, and can then resort to the usual methods of treatment.

THE MEDICAL AGE

VOL. XVI. DETROIT, OCTOBER 10, 1898. No. 19.

ORIGINAL CONTRIBUTIONS.

THE TREATMENT OF SPRAINS OF THE ANKLE WITH THE GIBNEY BANDAGE.

BY J. HOWE ADAMS, M.D., PHILADELPHIA, PA.

Undoubtedly the commonest and most troublesome sprain encountered by the physician in his daily work is that occurring at the ankle-joint. The results of treatment of this accident have proved so unsatisfactory that the expression "a sprain is worse than a break" has become almost a proverb. Many practitioners dread the occurrence of these cases in their practise, even when they have religiously carried out the treatment laid down in the text-books. This is unfortunate, for by the results obtained in minor surgery frequently is the doctor judged, and if he can bring about good and speedy results in this well known condition it frequently increases his popularity far more than a brilliant diagnosis of some obscure affection which the laity are never able to comprehend. Having been successful in the use of the so-called Gibney treatment of sprains, I beg leave to report my results. In conversation with many physicians from different parts of the country I find that the treatment is not as well known as its efficacy would warrant; this has emboldened me to publish my experiences.

According to the standard authorities, there are three indications to be fulfilled in the treatment of sprains: first, to control inflammation; second, to secure the absorption of the exudation; third, to restore the function of the joint. The violent wrenching or twisting which the joint experiences strains or tears some of the ligamentous fibers of the articulation and the blood-vessels of the synovial membrane, and in severe cases even the membrane itself is ruptured. In addition to these lesions, the tendons and their sheaths on the periphery of the articulation are frequently involved in the injury. This condition of affairs is a sufficient explanation of the symptoms which we find and are called upon to treat. They occur generally in ginglymoid joints, as the ankle, the knee, and the wrist. There is no provision for lateral movements in this class of joints; consequently when an ankle is violently abducted, adducted, or twisted, the force is concentrated on the lateral ligaments, causing them to give way to a greater or less extent. In a ball and socket joint a sprain is a rarity; the movements must be carried to a great degree to produce such results.

The classic treatment of a sprained ankle is to elevate the limb and apply lead-water and laudanum or the use of heat in some form, depending largely for guidance on the sensations of the patient. The heat and moisture are supposed to favor transudation and also to mollify and soften the tissues, thereby unloading the engorged vessels and taking the pressure off the tissue. Twenty-four or thirty-six hours were consumed in this treatment, waiting for the culmination of the congestive or inflammatory stage of the sprain. Then to favor the removal of the transudation which caused the swelling, stimulating or astringent applications were used conjoined with pressure. A piece of old linen or flannel, after being moistened with soap liniment, dilute alcohol, arnica, or a solution of salt in vinegar, was laid over the joint and covered in with the turns of a roller bandage applied with sufficient firmness but so as to cause no pain or uneasiness; or a plaster or starch bandage was applied, which was kept on for five or six days. During this treatment the joint was kept completely at rest. Then movements were cautiously begun to restore the motion of the joint.

Despite the most rigid observance of this routine the results were too frequently bad: the soft parts remained swollen and indurated; the movements were stiff and painful. Hence the after-treatment often combined the use of blisters, massage, continued soakings in hot water, etc. Sometimes the pain attending these injuries resembles rheumatism, and being frequently aggravated by atmospheric changes does partake of the nature of this affection.

Dr. V. P. Gibney, of New York, fully realizing the inefficacy of this treatment, a number of years ago had his attention called to a volume published by an English writer, Mr. Edward Cottrell; in this work — "Some Common Injuries to Limbs" — was laid down a course of treatment radically different from the one in vogue. Dr. Gibney tried the plan, and met with such success that he published his results in the *New York Polyclinic*, 1893, vol. i, pages 3–6. Although the treatment was not original with Dr. Gibney, who gives credit to the source from which he obtained it, it has generally been known by his name.

Dr. Gibney's explanation of the treatment is not very clear; I doubt if the average reader could apply his bandage from the description given. I will try to clarify his instructions.

The plan is simplicity itself. It consists in applying a tight bandage composed of adhesive plaster to the ankle and lower portion of the leg, immediately on the reception of the injury, paying no attention to the use of rest or elevation—at least not after the first twenty-four hours. The results obtained by this simple treatment seem out of proportion to the attention paid to the sprain; but certainly the clinical history of these cases is remarkably good. As a rule the patient is able to walk with comparative comfort immediately after the application of the bandage; he experiences no especial discomfort, and in a few days he is practically well. The most marked thing about the treatment is the surprise of the patient at his progress; he is, of course, familiar with the progress of other cases, and it seems impossible for him to get over his astonishment before he is lost sight of by his attendant.

The details of the application of this bandage are as follows: Ordinary

adhesive plaster is cut into strips one-half inch wide and in two lengths, about twelve and eighteen inches long. Taking up the foot as soon as the patient is seen and the diagnosis is made, one of the longer strips is placed around the ankle, parallel to the sole of the foot, beginning in front of the big toe, carrying the strip around the ankle just above the contour of the sole, and bringing the end back across the top of the foot to about the point where the strip began. It is well to place, overlapping this initial strip, a parallel piece. In placing these strips on, care should be taken to draw them as tightly as possible, so that the bandage will fit snugly when finished. Having applied these strips, another strip should be placed at right angles to them, which makes it run parallel to the back of the leg. One of the shorter strips should be selected for this purpose. Beginning well behind and above the ankle this strip should be carried down around the sole of the foot and brought up on the other side of the leg, making, as it were, a stirrup for the foot. The same precaution of applying the strip as closely as possible should be observed. Now the strips should be applied alternately: first one around the ankle parallel to the sole, then one parallel to the back of the leg, each one overlapping the one previously applied, running in the same direction, to some extent. This procedure should be kept up until the entire foot is enclosed in a boot of adhesive plaster, having the appearance of a shoe in which part of the heel has been cut away. This dressing properly applied has a very neat appearance; over it can now be placed an ordinary roller bandage, which will serve to help the adhesive plaster to "take hold." The patient should now be cautioned to be careful for a day or two, when he can begin to move around rather freely. This dressing can be kept on until the pain and swelling have subsided, when it can be removed, and no especial further treatment is indicated. If the dressing becomes loose, it can be reenforced by additional strips placed over the loose ones.

The history of a typical case is as instructive of the treatment as a description of the dressing. The following is characteristic of many others: A tennis player fell while playing on a court and sprained his ankle. He was a heavy man and the sprain was so severe that he was unable to put his foot on the ground, while walking on it was simply out of the question. Adhesive strips were at once applied, and after much coaxing the patient placed his injured foot on the ground tenderly; to his surprise he found that he could walk, not rapidly nor well, but still he could bear his weight on the limb and get over the ground to his home without assistance. He remained quietly in the house for the rest of the day.

This accident took place on Friday. On Saturday and Sunday he went around to some extent. On Monday he walked to my office without trouble; he had felt no especial discomfort and he could walk fairly well. In a week's time he was almost as well as before the accident. To say that he was astonished is putting it mildly; he was able to judge of the efficacy of the treatment, and it made him enthusiastic over its results.

This is the history of Dr. Gibney's patients. I noticed on reading over his original paper how he emphasizes the surprise of his patients when once encased in their bandages. Certainly this treatment constitutes a distinct advance in minor surgery.

FOUR MONTHS WITH THE VOLUNTEERS.*

BY ANDREW P. BIDDLE, M.D.,

Late Major and Surgeon, Thirty-first Michigan Volunteer Infantry; President of the Detroit Medical and Library Association.

I had thought that the fortunes of war would have given you the pleasure of an address from your more gifted vice-president on this occasion of another annual meeting of our Association, when it devolves upon the retiring presiding officer to deliver an address, unworthy though he feels himself of doing justice to so representative a professional body. But it is happiness to be among you again, my personal and professional friends of many years, especially after an arduous though short campaign in our southern land, where many of us left the greater part, if not the whole, of our physical body and have come home not unlike the famous wrecks of the rebellion, wrecks of the political war of '98.

I regret to have been obliged to leave my work there ere it was two-thirds finished, but I can never regret that I was permitted to form a humble part of the suffering thousands who, in the name of a passionate love for their country, went unhesitatingly forth to do her bidding, whether upon the deathly but more glorious fields before Santiago or upon the little less trying soil of our own States. And, as the memories of those days are still fresh, and as much criticism has been heaped upon all the departments of the Army, I have thought you might enjoy a short narration of the views of one of your members, who passed three months among the troops "reconcentraded" by the thousands in the great National Park (Chickamauga) of northern Georgia; though I can offer nothing new, but simply present a few facts and give the result of my own observations.

Firstly, however, I do not wish to let this public opportunity pass without again expressing my most cordial appreciation of the substantial way in which you showed a kindly interest in my welfare on my going.

Our regiment left Island Lake on the 15th of May, uniformed for a northern clime. The Medical Department was instructed to take along medical and surgical supplies sufficient for one week, which were furnished by the State of Michigan. We were divided into three sections and traveled as comfortably as ever soldiers have, and reached Chattanooga without other incident than that three men had come down with severe colds, contracted by lying on the grounds of Island Lake—one with pneumonia. This latter case I requested to have left in a hospital at Chattanooga, but it was not thought necessary, a failure that contributed to the causes that cost the young man his life a week later. The final run to Chickamauga National Park, a distance of about nine miles, was made after a tedious wait of six hours. At a newly erected station in a place called Lyttel, consisting practically of nothing but the name, we were dumped on the afternoon of a scorching day, and were told we were to encamp just over the hills. Over the hills was a distance of three miles over a dusty road. Not a tent was to be had that night except the one

* President's address. Read before the Detroit Medical and Library Association.

in which I put the soldier with pneumonia. After a cheerless supper we rolled ourselves into our blankets and slept for the first time under the star-lit skies of northern Georgia.

Within a few days, however, we settled down to regular camp life. A hospital, consisting of two hospital tents with an intervening fly, was erected in the most suitable locality.

It was not long, however, before the supplies of medicine gave out, and then the surgeon's troubles began. Again and again demand was made upon the proper authority, but with the same weary answer: "We expect a full supply to-morrow." And for three weeks things continued thus, and "to-morrow" became a thing of history. The chief surgeon blamed the department, and the latter excused itself by saying that it was not permitted to ask for bids until war had been declared, though it had been threatened for weeks. And this bad beginning was the forerunner of sadder tales, wrung from the lips of the sick and the dying and thrown back from the graves of the dead. From the very beginning there seemed to be an inability on the part of those in authority to appreciate the immediate necessities of a large volunteer army. Accustomed as it was to deal with small things, the Medical Department, as well as the others, failed to rise to the emergency. If you could but realize how the duties of one department were interwoven with those of the others, you would not fail to appreciate how the shortcomings of the one wrought havoc among the others.

Already the effects of a change of climate and of the habits of life had begun to tell, and the digestive troubles, the diarrheas, increased by the hundreds. Things came to such a pass that lucky was the regiment which could fall back upon State or private aid; and let me state here that no truer or nobler work has ever been performed and better appreciated than that done by the charitable public and private institutions, which, as disease became rampant, poured in without stint their voluntary contributions.

But soon another source of trouble appeared upon the surface, which has done more to embitter the regimental officers, especially the ones commanding, and through them the men, against the whole medical system than all the others combined. Men were taught with all the vindictiveness and hatred of bitter opposition to look upon the hospital as something to be dreaded, and so, even by the well, the field hospital was looked upon with horror, which to the diseased mind amounted to a prejudice impossible to appease. You, who deal daily with the sick, can appreciate the evil already engendered. And this was brought about by the system adopted and carried into effect, in spite of all, of divorcing two surgeons and two hospital stewards from their regiments to work in division hospitals. The principle was good enough, but the means employed were doubtful and did much to throw discredit upon the system. Perhaps you are not aware, nor sufficiently interested in matters military to know, that, strange as it may seem, Congress made no provisions for the formation of a hospital corps for the volunteer army, and so the Surgeon-General endeavored to carry out the principles of the regular Hospital Corps Service on a large scale. In the regular service the surgeons are under the direct control of the Surgeon-General and are assigned to certain posts or other duty by direct

orders from him. The corps is composed of hospital stewards, acting hospital stewards, and privates, who may come from the line or enlist for the Hospital Corps Service itself.

Up to this time every regiment had taken care of its own sick. The attendants were assigned to duty at the hospital by the colonel on the recommendation of the surgeon. An attempt was now made to form a large field hospital for each division, to do away with the regimental hospital entirely, except as a place wherein to hold the daily morning sick call, which takes place at six, and to care for those temporarily indisposed. The sick men were to be taken every day to the division hospital in ambulances. As you know, each division consists of three brigades, each brigade of three regiments, each regiment of at least 1200 men, making for each division about 10,000 men. To carry on this system of division hospitals and of division ambulance companies, officers must be had, and so, as stated, two medical officers and two hospital stewards were taken out of each regiment and assigned to duty therein. Men must also be had. At first the men of the various regiments were given an opportunity to volunteer for service in the hospital corps, where the pay is better (that of a sergeant) and the chance of promotion more likely. But the application of these volunteers had to bear the recommendation of the regimental surgeon and the approval of the commanding officer; and the opposition of the latter was so rife, and the doubt whether a transfer to the hospital corps did not mean a separation from one's regiment perhaps for the entire war existed so strongly, that but few men were obtained. An order was then issued by the general commanding our corps detaching every man whose name had at any time been associated with regimental hospital work. The woes of the Medical Department increased, for many of these men had tired of hospital service and had returned to their companies; a dissatisfied class of men was thus thrown upon it for its important work, and even these came very slowly. When I left the quota had not been filled. And let me say most emphatically that the men who enlisted for the hospital corps were so little cognizant of the duties they were to be called upon to perform that they, too, soon tired of their lot. They were composed mostly of young physicians and medical students and of druggists. The former wanted to do all the prescribing and the bossing, the latter the dispensing, and so there was no one left to do the nursing proper, the menial duties, the digging of the sinks, and the cooking A wrong class of men is encouraged to come into the service. What is needed are cooks, mule-drivers for the ambulances and wagons, strong men to do the menial work, intermingled with a few others and with a few familiar with clerical work, which in connection with the division hospital is enormous, as a record of each patient must be kept in regard to his clothing, equipment, and hospital treatment.

However, the division hospital was eventually put into running order. But the red tape necessary to secure every article needed! Every requisition must go through military channels—that is, had to pass from one officer to his immediate superior until it reached the commanding officer, and back through the same channel. One thing must be gotten of the medical purveyor, another of the quartermaster's department, and another of the com-

missary. Many regiments refused to give up their sick, the matter resting entirely with the regimental surgeon.

I have thought it of interest to present to you the character of "completed cases" that passed through the Second Division Hospital, First Army Corps, during the month of July. By completed cases is meant those cases whose record in this particular hospital is closed, whether the patients died, were cured, returned to their regiments, or passed into other hospitals. You will not notice here the large percentage of fevers which the public print has more recently recorded, for the double reason that they had not as yet appeared in such numbers and most of them still remained in the hospital, and are, therefore, not among the completed cases. Measles was most prevalent, 135 out of 576; then the various forms of fever, 225; and then the types of diseases usually found in any large general hospital. Conspicuous, however, is the very small percentage of purely surgical cases.

Diagnosis.	No. of cases.
1. Abscess, axillary	2
2. Abscess, ischio-rectal	8
3. Anemia	1
4. Ankle, sprained	2
5. Asthma	1
6. Bronchitis	4
7. Bright's disease (acute)	1
8. Bubo	9
9. Bubo with chancroid	2
10. Calculus (urinary)	1
11. Catarrh, chronic nasal	2
12. Cephalalgia	1
13. Cerebral congestion	2
14. Chancre (hard)	1
15. Chancroid	2
16. Clavicle, dislocation of	1
17. Colitis	1
18. Conjunctivitis	4
19. Constipation	1
20. Cystitis	2
21. Deafness, catarrhal	2
22. Diarrhea	15
23. Dysentery	15
24. Epididymitis	1
25. Epilepsy	1
26. Erythema simplex	1
27. Fever, continued	19
28. Fever, enteric	46
29. Fever, intermittent	25
30. Fever, malarial	65
31. Fever, remittent	44
32. Fever, typhoid	26
33. Fissure, anal	2
34. Fistula in ano	2
35. Fractures (arm)	2
36. Gastralgia	1
37. Gonorrhea (severe)	7
38. Hemiplegia	1
39. Hemorrhoids	12
40. Hand, injury to	1
41. Hernia	3
42. Indigestion	20
43. Insomnia	2
44. Keratitis	2
45. Knee, injury to	1
46. La grippe	1
47. Measles	135
48. Melancholia	1
49. Mumps	11
50. Nephritis, interstitial	4
51. Neuritis, optic	1
52. Neuritis, peripheral	1
53. Orchitis	4
54. Orchitis, from mumps	4
55. Otitis media	2
56. Paralysis, rheumatic	1
57. Perityphlitis	1
58. Rheumatism	19
59. Rheumatism, gonorrheal	2
60. Spinal meningitis	1
61. Spine, injury to	1
62. Stricture, spasmodic	2
63. Stricture, urethral	1
64. Sunstroke	1
65. Syphilis	3
66. Synovitis	2
67. Testicle, undescended	1
68. Thigh, inflammation of	1
69. Ulcer, corneal	2
70. Ulcer, phagedenic, of penis	1
71. Urine, retention of	1
72. Vaccinia	2
73. Varicocele	3
74. Wrist, broken	1
Total	576

The frightful increase in the number of fever cases during the latter part of July and the early days of August must have been and was due to some tangible causes. From a superficial view no place would have appeared more suited to a large encampment than the Chickamauga National Park.

"It is mainly a forest, with occasional openings only, the open places being preserved for drills. Being, however, very largely in the shade, the tents and the grounds around them remained damp, while the sanitary action of sunlight upon germ organisms was shut off. The soil is hard, tenacious clay, will not absorb the slops, dirty water, grease and saliva, which it is impossible to keep from the grounds in a closely packed camp. The water is derived from three sources: from wells, a limited supply; from springs, a limited supply; and from the Chickamauga River. The wells are of recent construction. Most of them have been bored by the park authorities since the arrival of the troops. They are sunk as a rule over 100 feet, so as to reach a water-bearing stratum. The water from them is cool and, therefore, much relished by the soldiers, but it is so strongly charged with lime and magnesia as to give in some cases a decidedly briny taste. It is not unlikely that surface water is able to percolate down to the bottom of the wells by passing outside of the casing. For this reason, and on account of the strong solution of mineral salts, it is not believed that the water is good for the men. The quantity of this water which can be obtained is limited, since the wells give out by much pumping. The springs which afford any great volume of water are situated outside the park. The water was hauled in barrels, carried on the regimental wagons. The supply of wagons and barrels being short, the amount of water which could thus be obtained was limited. This is the principal drinking-water used by the men. While charged with lime and magnesia, it is believed to be free from infection. The main source of supply of water is the Chickamauga River. This is a narrow, rather sluggish, winding creek, with steep clay banks, sometimes with marshy borders, sometimes with banks overgrown with vines and trees. Much rolling driftwood is to be seen in the creek. It cannot be used for drinking purposes."*

It was difficult to enforce the hygienic details of the camps. The sinks to my mind were the most prolific source of all the sickness. They could not be dug to a suitable depth, owing to the underlying rock being so near the surface, and the rains, which were so constant during the latter part of July and early August, filled them and carried away the dirt, and thus the defecations of many thousand troops floated in the water of the sinks, exposed to the midday sun of a southern clime. Thus the camp was overswept with fever-breeding germs and with flies, which swarmed by the thousands over the sinks, and lighted upon the food and bodies of the men. The stench at times was horrible. And add to this the atmospheric condition caused by the constant rains.

The troops were undoubtedly kept in one place too long. For two and a half months no change whatever was made in the location of our regiment. I do not think it was the intention of the War Department to keep them so long there; but the expectancy of being ordered to the front at any moment and the subsequent revoking of the orders with the disappointment which ensued told heavily upon the temper of the officers and the men and made them reckless and careless of themselves. The food was not suited to the hot clime, where the heat engenders digestive troubles.

*Almost literally taken from report of Major Parker.

It has been stated that carelessness and indifference has been manifested by the surgeons. There is no question that many of the sick did not sleep upon cots, but there were no cots to be had at that time. It is unfortunately true that the patients' diet was improper and irregularly given, but there were no cooks at hand; that many measles cases were too near the others, but there were at that time no other tents to be had; that rain poured in upon the sick, but the rains of the South are so heavy and continuous that the canvas would not give proper protection; and that each individual case did not receive the care it ought, but there was no help. We must sadly admit all this, but there were excuses for it all. It was not carelessness, not indifference, not incompetency on the part of my medical *confrères* of the regiments, for no one could be careless or indifferent to such suffering. The hospitals of our city have not grown to perfection in a day; they are the outgrowth of many years, of much experience, of long and hard work.

And so in offering a criticism upon any department we must not fail to take into account the enormity of the work assigned in a short space of time; the necessity of a system to account for all the supplies issued and to preserve valuable records for the future use of the Government; the totally unprepared condition of the country at the time of the outbreak of the war.

Many instructions were issued for the guidance of the medical officers as to their various duties. I quote but one to show how well aware the Medical Department was of the dangers to be encountered. Prophetic is it almost. It reads as follows:

WAR DEPARTMENT,
SURGEON-GENERAL'S OFFICE,
Washington, April 25, 1898.

CIRCULAR
No. 1.

In time of war a great responsibility rests upon medical officers of the Army, for the result of a campaign may depend upon the sanitary measures adopted or neglected by commanding generals of armies in the field. The medical officer is responsible for proper recommendations relating to the protection of the health of troops in camp or in garrison, and it is believed that, as a rule, medical officers of the United States Army are well informed as to the necessary measures of prophylaxis and the serious results which infallibly follow a neglect of these measures, especially when unacclimated troops are called upon for service in a tropical or semitropical country during the sickly season. In Cuba our armies will have to contend not only with malarial fevers and the usual camp diseases—typhoid fever, diarrhea, and dysentery—but they will be more or less exposed in localities where yellow fever is endemic, and under conditions extremely favorable for the development of an epidemic among unacclimated troops. In view of this danger, the attention of medical officers, and of all others responsible for the health of our troops in the field, is invited to the following recommendations:

When practicable camps should be established on high and well-drained ground not previously occupied.

Sinks should be dug before a camp is occupied, or as soon after as practicable. The surface of fecal matter should be covered with fresh earth or quicklime or ashes three times a day.

New sinks should be dug and old ones filled when contents of old ones are two feet from surface of ground.

Every man should be punished who fails to make use of the sinks.

All kitchen refuse should be promptly buried and perfect sanitary police maintained.

Troops should drink only boiled or filtered water and coffee or tea (hot or cold), except where spring water can be obtained which is pronounced to be wholesome by a medical officer.

Every case of fever should receive prompt attention. If albumin is found in the urine of a patient with fever it should be considered suspicious (of yellow fever) and he should be placed in an isolated tent. The discharges of patients with fever should always be disinfected at once with a solution of carbolic acid (5%) or of chloride of lime (6 oz. to gallon of water), or with milk of lime, made from fresh quicklime.

Whenever a case of yellow fever occurs in camp the troops should be promptly moved to a fresh camping ground located a mile or more from infected camp.

No doubt typhoid fever, camp diarrhea, and probably yellow fever, are frequently communicated to soldiers in camp through the agency of flies, which swarm about fecal matter and filth of all kinds deposited upon the ground or in shallow pits, and directly convey infectious material, attached to their feet or contained in their excreta, to the food which is exposed while being prepared at the company kitchens or while being served in the mess tent. It is for this reason that a strict sanitary police is so important. Also because the water-supply may be contaminated in the same way, or by surface drainage.

If it can be avoided, marches should not be made in the hottest part of the day—from 10 A.M. to 5 P.M.

When called upon for duty at night or early in the morning, a cup of hot coffee should be taken.

It is unsafe to eat heartily or drink freely when greatly fatigued or overheated.

Ripe fruit may be eaten in moderation, but green or overripe fruit will give rise to bowel complaints. Food should be thoroughly cooked and free from fermentation or putrefactive changes.

In decidedly malarious localities from 3 to 5 grains of quinine may be taken in the early morning as a prophylactic, but the taking of quinine as a routine practise should only be recommended under exceptional circumstances.

Light woolen underclothing should be worn, and when a soldier's clothing or bedding becomes damp from exposure to rain or heavy dews the first opportunity should be taken to dry it in the sun or by fires.

GEO. M. STERNBERG,
Surgeon-General U. S. Army.

Thus hemmed in on all sides by military officialism, by red-tapism, hampered by lack of hospital and medical supplies, surrounded by insufficiency and poor quality of help, the army surgeon's position has not been an enviable one.

Time forbids me to enter into a discussion of the relative value of the regimental and the larger field hospital. Had there been great battles where thousands are wounded, the necessity of the division hospital would have been apparent; but, as it was, only a few regiments saw active service and the volunteer regiment is a family within itself, accustomed to its own surgeons and unwilling to accept the services of others, dreading to go to other hospitals to be taken care of by strangers, even if superior nurses.

It can be said that in a general way sickness was due to: (*a*) Too much freedom in the selection (physically) of the volunteers; (*b*) change of the habits of life and of climate; (*c*) want of proper food and clothing for a southern country; (*d*) the overindulgence in good food; (*e*) want of knowledge on the part of officers to care for their men in camp, and (*f*) of the men to care for themselves; (*g*) want of enforcement of the rules of hygiene by the regimental commanders in spite of the warnings of the Medical Department; (*h*) unavoidable and unnecessary exposure to the heat and the wet.

The failure to meet the requirements of the hospital service during the early months of the war was due to: (1) Inability on the part of the Government to obtain the necessary supplies; (2) lack of cooperation of the various departments; (3) want of familiarity on the part of the volunteer medical officers with the business methods of the army; (4) failure of Congress to provide for a hospital corps immediately upon the outbreak of the war and the methods used to provide the force for the service; (5) inability on the part of the regimental officers to appreciate the needs of the hospital service and their constant antagonism to the Medical Department.

There are many lessons of the war, short as it has been, that we might take to heart. There has been shown the mutual dependence of one upon the other, how to each of us work is given and how the failure of one creates an inability in the other properly to perform his work. And no more beautiful illustration can be given of the effectiveness of discipline and constant training with the courage to do one's duty than that of the action of our Navy.

Let us then not fail to recognize the necessity of organization and of mutual dependence, to train ourselves to work in harmony, and to have the courage to fight the battle in the place to which we have been assigned.

Long may our Association live! Strong may she be in her right! And may we her defenders carry on the work she has at heart with the one purpose of advancing her interests with the same unselfish devotion to duty as our noble profession has always shown in years gone by.

I cannot close without expressing my appreciation of the uniform kindness shown me during my incumbency of the office of president.

THE BACTERIA AND CRYPTOGAMIC FLORA OF THE SPUTA—A REPLY TO CRITICISMS AND OBJECTIONS.

BY F. VICENTINI, M.D., CHIETI, ITALY.

Those who are acquainted with my work upon the cryptogamic flora of the mouth will remember that in its fourth part I answered some objections that had been urged on the appearance of its Italian edition. I now desire to add a few words regarding some objections which have been advanced on the appearance of the English translation.

It has been said by Professor Klein that my book might have had some *raison d'être* fifteen years ago, if it had dealt with the purely microscopical examination of the size and shape of micro-organisms of the sputa and of the mouth, prior to the introduction by Koch of exact methods of bacteriological study, but that it possessed none at the present time. From this the reader might infer that my descriptions included only the severed or inferior forms of bacteria hitherto known, no mention being made in Professor Klein's paper of the superior phases (fructification by ears, pseudo-inflorescences or male organs), as described by me for the first time, in the bacterial growths of the mouth and sputa.

What are bacteria in themselves, and what is their nature? Are they complete beings as they appear in artificial cultures, or are they, in fact, simple scattered particles of more complex beings?

These are the questions which our opponents do not seem to take into consideration at all, although a process of ramification and of morphological evolution towards the higher fungi had been detected or foreseen by the same Professor Klein and others in tubercular bacilli. I was led, by my daily clinical examinations of the sputa, to consider bacteria not only in their scattered or rudimentary forms, as they appear in laboratory specimens, but also in their further development, and connection with the higher cryptogamic flora, as under favorable conditions they occur in Nature.

The question is "a burning one," as THE MEDICAL AGE said in a brilliant review of my book.* In this lies the *raison d'être* demanded by Professor Klein. At any rate, this was my reason for resuming this morphological study, begun by the first investigators and abandoned by modern bacteriologists, as stated on page 159 of the work.

Rather than inquire if my views were more or less orthodox, according to the current doctrine of the day, my opponents should have begun by a practical verification of the facts alleged by me, which, according to THE MEDICAL AGE, were the result of a quarter of a century devoted almost exclusively to the study of bacteria, those of the mouth and respiratory passages particularly. The evidence of the existence of these is of such a character that it demands careful consideration, and doubtless will lead to changes in classification.

I regret that, with the exception of Mr. Mummery and Professor Miller, none of my critics alluded to should have turned his attention to this matter nor upon my subordinate considerations, that seemed to the *British Medical Journal* to constitute an exceedingly suggestive chapter, although Professor Klein rebuked them as an anachronism of extinct type. Few people, I think, will concur in the opinion of the learned Professor. The life history of bacteria cannot be understood until we have knowledge of them, except as cursorily seen in the field of the microscope or under the artificial conditions of laboratory propagation and culture, as THE MEDICAL AGE opportunely said.

I will not further deal with Professor Klein's paper. I add only that my "tremendous courage," according to him, will always be found to be tempered with modesty and diffidence. In regard to the remarks of *The Lancet* upon my views relating to the classification of the bacterial species, the explanation just given will suffice.

While thanking the kind critic of the *British Medical Journal* for his indulgent review, I must add that I did not intend to enumerate all the particular characteristics of the various types of bacteria. While investigating their morphology I was looking upon them as a cryptogamic group of a more complex structure than it was before supposed.

I am sorry to say that the critic of the *Daily Chronicle* seems to have so thoroughly misunderstood my doubtful suggestions about the normal presence of bacteria of the mouth and mucous membranes as to regard my views as alarming. My ideas, if confirmed, would, on the contrary, safely warrant us against any fear of bacilli. (See Hypothesis of the Author on the Action of Bacteria upon the Human and Animal Economy, pages 206–16 of the book.)

In a further paper Mr. Mummery repudiates the hypothesis that eventual infection in a whooping-cough is by myelin, because, he says, this is a waste product eliminated by the organism. But I venture to ask: Are not inoculable cultures also to be regarded as so many waste products of elimination?

In regard to myelin, it was objected before the Royal Institute of Venice

*Bacteria of the Sputa and Cryptogamic Flora of the Mouth. By Professor Vicentini, M.D. With four colored plates and a preface by Prof. W. D. Miller, of Berlin. Baillier, Tindall & Cox, London, 1897.

that the abundant flow of this substance, as described by me in some cases of whooping-cough, would be found to be out of proportion with the limited respiratory area invaded by the disease. It will suffice to refer my opponents to the calculations of Lee, who since 1886 estimated our respiratory surface at an amount of eighty-one square meters—*i.e.*, fifty-four times the whole surface of the body.

The surprise aroused in the unprejudiced mind of the critic of the *Medical Press and Circular* from my doubt about some eventual affinity between the B. anthracis and B. subtilis will cease, I think, as soon as he remembers that such an opinion was not my own, but many years older.

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AS THE gentleness and sympathy of the medical adviser very often effect half the cure, the *New England Gazette* tells us that a doctor must learn to: (1) laugh; (2) tell a story; (3) keep his own troubles to himself; (4) stop croaking; (5) hide his own pains and aches under a pleasant smile; (6) not to cry; and to (7) meet his friends with a smile, because while the good-humored soul is always welcome, the hypochondriac or the dyspeptic is most always an insufferable nuisance. Besides which a good laugh and a well-told story are a god-send to a sick-room. Then the world, which is too busy to care for your ills or sorrows, is just as indifferent to your pains, and while tears do well enough in novels they are out of place in real life, where it is kinder to do good than harm, and paddling in dirty water must soil the paddler's clothes.

THE Prince of Wales has been inundated with offers of assistance while he has been confined to his bed with a fracture of the patella. An equine bone-setter criticizes the diagnoses of the surgeons in attendance. Three well known peers urge his employment of some different persons "whose cures are marvelous," one recommending a Scotch gardener whose fingers are reputed to possess magnetic strength. An Irish baronet is prepared to come immediately "to exert a something which has been in the family for years and cured my grandfather's game leg." A countess sent a bone which cured some family affection "by rubbing in a circular fashion over the weak spot," but the family treasure has been returned without a trial.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE EXTRA-CORPUSCULAR LIFE OF THE MALARIAL PLASMODIUM.

While considerable variance of opinion will still continue to find expression in regard to the extra-corpuscular life of the malarial parasite, the brilliant investigations of Surgeon-Major Ross of the Indian Medical Service have undoubtedly led to a climax being reached. The announcement that Ross had established an absolute proof of the infection of birds with the malarial parasite through the agency of mosquitos has settled speculation regarding the rôle played by this insect in the dissemination of the disease. The notion that the mosquito plays an important part is an old one, and was indeed held by Laveran himself. It remained, however, for Ross to confirm this idea by a series of painstaking observations, which have seldom been equaled for brilliancy or effectiveness.

Dr. Patrick Manson, in a paper read before the Section of Tropical Diseases in the British Medical Association, has shown the various steps in the inquiry in which Ross has been engaged. He first of all found that the mosquito, in imbibing human blood, ingested the parasite. His investigations were directed to the flagellated body, which as an adjunct of the parasite has been a subject of endless debate. Ross observed the formation of the flagellum in the mosquito's body. A vast amount of controversy has taken place regarding this flagellum. Many distinguished bacteriologists have considered it a degenerative feature in the parasite's life, a sure indication that it is about to die; but Manson and Ross have always maintained the reverse proposition that it was a sign of vitality, a token that the organism was about to assume a new phase of existence, and that the flagellum itself represented the reaction of the parasite to a medium of increasing viscidity. They had shown some time previously that if blood be collected under vaselin, the flagellated stage is not as a rule apparent. In the body of the mosquito Ross observed the flagella break away and assume separate existence, so he surmised that the parasite entered upon a new phase of life in the mosquito's stomach. The nature of the problem presented in these facts Ross decided to work out in birds.

Birds suffer from malaria, and two forms of the parasite are recognized in their blood, known as Proteosoma and Halteridium. Ross allowed mosquitos to feed on birds afflicted with proteosoma, and found that the parasite entered

the mosquito's stomach. An hour later, examining his mosquito, he found certain oval pigmented bodies in the muscular lining of the stomach, which he inferred were a developed stage of the proteosoma, for in hundreds of test experiments these pigmented bodies only occurred in mosquitos fed on proteosomatous birds. That these bodies were evolutionary forms of proteosoma was almost confirmed by the previous example of Halteridium, the other malarial parasite of birds. In this organism, after the flagellum had broken away, it entered the pigmented halteridia, and these being transformed into traveling vermicules, possessed the power of entering the corpuscles. Ross inferred the same thing to occur in proteosoma, that the traveling vermicules entered the mosquito's stomach and there became the pigmented bodies. The further course of evolution of the proteosoma in the stomach is highly interesting. It grows in size and projects rounded bodies beyond the stomach walls. These Ross terms Proteosoma coccidia. These coccidia undergo changes of appearance. Pigment comes and then disappears, but they finally burst and from them emerge germinal vermicules. These vermicules practically infested all the tissues of the mosquito, and what was highly important, these parasites were discovered in the venemo-salivary glands of the mosquito. The climax of these brilliant investigations was now within easy reach. Ross allowed mosquitos to feed on birds afflicted with proteosoma, and after a few days he fed them on birds whose blood was void of parasitic infection. The blood of the latter in a few days was filled with proteosoma, thus inevitably establishing the fact that the mosquito acts as an extra-corporeal and intermediate host of the malarial parasite.

The fact that the mosquito begins and ends its life in water may furnish an explanation of the undoubted malarious nature of swamps. Direct mosquito infection is probably less common than indirect, but that this interesting animăl acts as the extra-corporeal host of the parasite seems substantiated beyond all chance of contradiction.

EDITORIAL NOTES.

The Failure of Food Supplies.

Sir William Crookes's presidential address before the British Association for the Advancement of Science was full of sensational predictions. In thirty years' time the bread-eating peoples, already over 516 million in number, will have so increased that famine will confront them. In thirty years the population of the world will have swollen to 746 million, and an additional 330,000,000 bushels of wheat will be required to feed these hungry millions. Where is the surplus to be grown? In other words, how is the yield to be increased thirteen to twenty bushels an acre? The chemist is to come to the rescue. Starvation is to be averted through the laboratory. The wholesale application of nitrogen, of which abundant supplies are now wasted in city sewage, is to renovate the worn-out and infertile land. Nitrogen does not appear likely to give out, although the means of deriving it has not so far kept pace with the necessities of the race.

ITEMS AND NOTES.

It is estimated that there exists in India nearly 150,000 deaf-mutes.

English medicine will be represented at the Paris Exposition in 1900.

The Queen Dowager of Holland intends to found a hospital for consumptives.

South Africa is said to offer many good openings to physicians who care to go there.

In Japan artificial lactation is unknown; some children take the breast-milk until four or five years old.

Vincenzi has been making a study of the bacteriology of holy water and finds it full of dangerous organisms.

The number of deaths in India from the plague, during the present epidemic, has now passed over the one hundred thousand mark.

The latest method for the surgical treatment of exophthalmic goitre, section of the cervical sympathetic, is said to be fairly successful.

The Boston floating hospital is doing excellent work in Boston and was a great boon to the sick babies and mothers during the heated term there.

A favorite mode of suicide among the African tribes who dwell near Lake Nyassa is for a native to wade into the lake and calmly wait for a crocodile to open its mouth and swallow him.

Dr. George W. Crile, of Cleveland, Ohio, was awarded the Senn medal at the last meeting of the American Medical Association. The title of his paper was "An Experimental Research on the Surgery of the Chest and Pleura."

Dr. Raiski, a Russian statistician, has recently shown that the prevalence of syphilis among the Russian peasantry is appalling. He points out that the ravages of the disease are more terrible than those of typhus, cholera and diphtheria combined.

Professor George Ebers, who died on August 7, at his villa on the Starnbergersee, in Bavaria, in his sixty-second year, will be long remembered as the discoverer of the famous medical papyrus which bears his name. He made the discovery in Thebes during his second visit to Egypt in 1872.

Deying and Bricemaret have found that a tincture of Iceland moss (one part of moss to five of eighty-per-cent. alcohol) was markedly efficacious in arresting vomiting in numerous cases in which emesis resulted from various morbid states. The dose given was from thirty to fifty drops. The authors have not had the opportunity of trying the remedy in the sickness of pregnancy.

Baron Henri de Rothschild, a member of the Paris branch of the famous financial family, has passed with distinction his final examination for the degree of doctor of medicine. M. de Rothschild's graduation thesis is founded upon observations made in a private dispensary, which he established for the treatment of infants. He was awarded a silver medal by the Academy of Medicine.

The use of a spray of solution of sulphate of copper for the purpose of preventing the potato "rot" and improving the cultivation of the tuber in Ireland has been shown to be not without its risks. A farmer who had tried to clear an obstruction from his spraying machine by sucking it narrowly escaped death, and sundry children are said to have been made seriously ill by eating berries coated with the spray.

The design for the Pasteur monument is completed. It represents Pasteur in antique costume, and sitting near him is a young woman showing her healed daughter, while Death shrinks into the background. There are also to be bas-reliefs showing an ox, supposed to have been saved from anthrax; a vine-grower picking grapes, free, it is to be supposed, from the phylloxera; and a shepherd caressing his antirabic dog.

According to the latest statistics, Chicago ranks first in order as a medical center, with over 2500 medical students; Philadelphia second, with upwards of 2300 students; New York shows a decrease in attendance from 1889 of almost 200, giving her the third place, with 1900 students; St. Louis ranks fourth, with about 1400 students, having passed Baltimore, Cincinnati, and Louisville; Baltimore has 1300 students, and occupies the sixth place.

The most favorite medicine in China is largely patronized because it is believed to cure almost anything. It consists of a few slices of the licorice root, some dried flower-heads, dried cockroaches, dried cockchafers, and the skin of a small lizard. The extravagant customer can have, for five cents extra, a dried "sea-horse," and for another five cents a little dry fish. The whole of these are boiled together and the decoction cures everything from heartburn to amaurosis.

A very sad case is reported from Bombay of the death of a European student who, while helping the professor of pathology to perform a post-mortem examination in a case of plague, accidentally cut his finger. The lad, who is described as "a promising and industrious student, and a conscientious worker," contracted plague and died within a week of the date of the wound. Two similar fatal cases of plague, contracted by post-mortem wounds, have lately occurred in Calcutta.

The post-mortem examination of the Empress of Austria has shown that the blow of the assassin broke the fourth rib, the weapon piercing the lung and the left side of the heart and penetrating three and one-third inches. After being stabbed the Empress walked to the steamer, a distance of fifty yards, and it was only after reaching the vessel that she fell. The wound in the heart muscle was only a sixth of an inch in length, and the elasticity of the myocardium partially closed this and prevented an immediately fatal loss of blood.

A Vienna specialist received $35 for ridding a man of a tapeworm. Afterwards the patient thought he had paid too much and demanded $20 back. The doctor demurred and was sued. He could not, he argued, put the tapeworm back where he took it from, and if he could he was not sure that either the patient or the law would let him. Besides, the tapeworm was dead. The patient complained that it was only a short one. The doctor said he could not find any precedent for removing tapeworms at so much per yard. Finally the doctor gave the patient back $2.50!

There has been recently introduced in the New York City legislature an ordinance providing that any person or persons who sell or cause to be sold or given away tobacco or cigarettes, whether composed of tobacco or any other substance, to any child or minor under the age of eighteen years, within the limits of the territory embraced in the city of New York, as now constituted, shall be guilty of a misdemeanor, and upon conviction thereof shall be punishable by a fine of $10 or ten days' imprisonment, or both, within the discretion of the magistrate trying such offense.

J. Garel calls attention in the *Journal of the American Medical Association* to the fact that every person who complains that it has hurt him to swallow for the last few weeks—three at least—should be considered a syphilitic and treated accordingly. Syphilis can be diagnosed at once from this one symptom of persistent dysphagia at any stage. It is frequently the first or only symptom recognized by the patient. The pain vanishes with forty-eight hours' treatment with potassium iodide, unless it is due to that extremely rare cause, incipient cancer, or tuberculosis of the throat, which can thus be differentiated.

The latest statistical report shows that during the year 1896 only ten deaths occurred throughout the whole of Germany as the result of smallpox, and of these the majority occurred near the Austrian and Russian frontiers, where the risk of infection is greater than further inland. During that year the total number of cases of smallpox amounted to ninety-two, comparing favorably with the returns for Austria, where there were 2663 cases with 410 deaths, and with the 9036 recorded in Italy, both the latter being countries in which the vaccination laws are less stringently enforced than in Germany, where they do nothing by halves.

According to the *British Medical Journal*, a Dr. Sheridan, of Stradone, Ireland, was recently placed in a most unpleasant position. He was called to see a young woman, and proceeded to make a vaginal examination. While so engaged, the mother of the girl shut and locked the door of the room, so that the Doctor could not get out, and he had to call to his servant out of the window to go for the police. On their arrival, Dr. Sheridan was given into custody on a charge of rape. When he was brought to trial, the magistrates, after an investigation of the case, refused to entertain the charge, and the chairman stated that all the magistrates agreed with him in saying Dr. Sheridan left the court without a stain upon his character. The two fife and drum bands of the town turned out to welcome the Doctor on his return home.

PROFESSOR VIRCHOW'S visit to England, which takes place in the first week of October, is to be made the occasion of a public dinner in his honor, given to him by the English medical profession. The chair will be taken by Lord Lister, who will be supported by all the leaders of the medical profession then in London. The holiday season may prevent the gathering from being quite representative, but most of the important London medical men hold appointments at one or the other of the medical schools, and as the schools open in October, absentees ought to be few. The purpose of Professor Virchow's visit is to deliver the Huxley Lecture, or Introductory Lecture to Students, at the Charing Cross Medical School.

ACCORDING to the *British Medical Journal* of August 27, an army medical officer on leaving the army medical school at Netley (the candidate on probation) receives a commission of lieutenant, the pay of which rank is £200 ($1000) a year. The next grade is captain, and after five years' service the pay is £250 ($1250) a year. A captain may be promoted to the rank of major after twelve years' full-pay service; to qualify himself for this promotion he must at any time after his seventh year of service pass a special examination in surgery, medicine, hygiene, the duties of medical officers, hospital organization, military law, and the administration of the Royal Army Medical Corps. All officers under the rank of colonel must retire at the age of fifty-five; above this rank at the age of sixty, unless specially extended. An officer of ten years' service on full pay may be permitted to retire on a gratuity of £1250 ($6500); after fifteen years' service, £1800 ($9000); after eighteen years' service, £2500 ($12,500).

THE recent death of Sir Richard Quain has brought forward the following anecdote of London high-life practise: Dr. Quain, as the London *Practitioner* states it, had in a very high degree the power of inspiring confidence, which is of vital importance in the equipment of a successful city physician. He was a past master in the art of managing patients. There is a legend, however, that he was once driven from the field by a still more consummate artist. A financial magnate of Israel had been suffering for a long time from renal trouble of a grave character, and which it was considered expedient by Quain and other physicians in attendance to conceal from the family. The wife insisted, much to Quain's annoyance, on calling in Sir William Gull, who, she said, would be sure to tell her what her husband was suffering from, which apparently none of the doctors knew. Gull, when interrogated on the subject, replied in his most oracular manner: "Madam, your husband is suffering from a cachexia." "There," said the lady, triumphantly, "I knew Sir William Gull would tell me."

SINCE Professor Lombroso (*Journal of Medicine and Science*) advanced his theory declaring that genius is a form of degeneracy, an Italian school has sprung up, the apostles of which attempt to combine science and statistics. The latest theorist is Dr. Morselli, and he attempts to prove that suicide and divorce are closely related, and that, in fact, divorce is the chief cause of suicide. He finds that in Germany, where suicides are more frequent than in

any other country, that out of a total of 620 cases in a certain decade, 61 married women, 87 single women, 124 widows and 348 divorced women committed suicide—that is to say, more than one-half the suicides among women in Germany were among those divorced. Out of the 4000 male suicides, 204 were married men, 274 unmarried, 888 widowers, and 2644 divorced. In both these investigations, those married furnished the least number of suicides and those divorced the largest number. Further, in Ireland, where divorce is practically unknown, the ratio of suicides is less than any other country, and in Denmark, where the proportion of divorces to the population is highest, the proportion of suicides to the population is also highest.

In Egypt, according to the *Medical and Surgical Reporter*, castration is at present performed on boys from seven to ten years old, by the monks of certain Coptic convents, who reap a good profit by supplying the harems of wealthy Mussulmans with some of their mutilated victims. The operation is made in two different ways: The first operative method consists in cutting off with a razor the sexual parts as near as possible to the pubic region, carrying away in a single stroke both the penis and the scrotum. Then the patient is buried, almost up to his neck, in some fine dry sand for the purpose of staying the hemorrhage. After four or five days the sufferer is dug out and the wound is dressed with a few rags sprinkled with oil. The second operative procedure consists in dividing or rather in crushing the spermatic cord and the penis by means of a strong twine whose extremities the operator pulls apart with all his might. The sufferings of the child are horrible, but hemorrhage is not to be feared so much in this case. The sufferer is therefore not buried in sand, and his wound is dressed with acacia bark, which is rich in tannin. But in either of the two procedures entailing these barbarous mutilations, two-thirds of the children succumb.

According to the *Scientific American*, an extended series of observations in La Pitie Hospital, Paris, has led to a practical determination as to the alterations, their shape and volume, which occur in the hearts of persons suffering from nervous affections, the results being thus briefly stated: In normal subjects moderate exercise does not cause any perceptible changes in the heart with regard to shape, volume, or position; in subjects whose nervous systems have undergone deterioration in consequence of hysteria, neurasthenia, or any reflex trouble having its point of departure in a special part of the organism, the heart grows hyperexcitable and changes in shape or position the moment it is called upon to do some slight extra work. This alteration may present itself in three typical ways, as follows: The whole cardiac area may be uniformly enlarged, or the increase may be partial and irregular; or the heart may become retracted and diminished in volume; finally, the organ may be dislocated laterally, with or without changes of shape and volume, the displacement being directed toward the mesial line, or, more frequently, toward the axilla. It is stated that in the prosecution of these researches use was made of a modified form of Bianchi's phonendoscope, and careful tracings were also executed, showing the contour of the heart region before and after exercise.

NEW PUBLICATIONS.

A SYSTEM OF MEDICINE.

The sixth volume of Dr. Allbutt's System of Medicine is devoted to diseases of the respiratory and circulatory systems. The various diseases of the lungs are considered in a series of articles written with great ability, and which for clearness and terseness of style are certainly notable. Among the articles of unusual merit must be mentioned Dr. Kidd's article on "Phthisis Pulmonalis," and Dr. Arlidge's contribution on "Pneumoconiosis." The consideration of the diseases of the circulatory system is preceded by an exceedingly valuable article dealing with the clinical examination of the blood and cardiac physics. The editor apologizes for the absence from this volume of an article by Professor Welch on "Thrombosis and Embolism." Professor Welch, having found himself engaged in a desperate struggle with the antivivisectionists, has been unable to fulfil the part assigned to him by the editor. The present volume fully maintains the high standard of excellence achieved by its predecessors.

A System of Medicine. By many writers. Edited by Thomas Clifford Allbutt, Regius Professor of Physics in the University of Cambridge. Volume VI. New York: The MacMillan Co., 1898.

PATHOGENIC BACTERIA.

Clinical diagnosis now being indissolubly associated with the microscopical laboratory, a concise and convenient account of the technical procedures necessary in the study of bacteriology is always a desirable possession. Dr. McFarland's manual is already well known to students in this department of medical investigation. The second edition contains much matter not included in the first, and new chapters have been added dealing with whooping-cough, mumps, yellow fever, and other diseases. Useful methods of determining the thermal death-power are also included.

The work should receive due consideration from students buying text-books for their college courses. It will also aid the practitioner dealing with the clinical problems inevitable to his profession.

A Text-book upon the Pathogenic Bacteria. For Students of Medicine and Physicians. By Joseph McFarland, M.D., Professor of Pathology in the Medico-Chirurgical College, Philadelphia, etc. With 134 illustrations. Second Edition, revised and enlarged. Philadelphia: W. B. Saunders, 1898.

PERNICIOUS FEVER.

A reawakened interest in tropical diseases will be a logical outcome of the late war. Our troops have returned with weakened and shattered constitutions, the result of contracting just such pernicious form of malaria as Dr. Homem has described as prevailing in Brazil. The work here presented will be found exceedingly seasonable reading. In the pernicious malarial fever described by the author will be found a graphic picture of the malady seen so frequently of late in our hospitals as a result of the Cuban campaign. At the present time the profession will find much in Dr. Homem's work on pernicious fever which will be very instructive. The remarkable features which characterize these southern fevers should make a knowledge of them of great interest to students of medicine the world over.

Pernicious Fever. By Dr. Joao Vincente Torres Homem, Lecturer on Clinical Medicine to the Faculty of Rio de Janeiro. Price, paper 19 cents; cloth 37 cents. Detroit: Wm. M. Warren, Publisher.

A MANUAL OF GYNECOLOGY.

Dr. Davenport has the happy faculty of selecting just those minor points in gynecological therapeutics and surgery which the student and junior practitioner stand most in need of knowing, and presents these elementary principles in a clear, concise and thorough manner. The reader of this book having but a meager knowledge of female local disorders will find no difficulty in the successful diagnosis and treatment of these conditions as the result of the study of these pages.

The minutiæ of office work as described by the author is a most commendable feature of the book, and aptly deals with a department of practise of which the average physician is lamentably ignorant. The book can be highly commended.

Diseases of Women: A Manual of Gynecology Designed Especially for the Use of Students and General Practitioners. By F. H. Davenport, A.B., M.D., Assistant Professor in Gynecology, Harvard Medical School, etc. Third Edition, revised and enlarged. With 156 illustrations. Pp. 388. Philadelphia and New York: Lea Brothers & Co., 1898.

CLINICAL DIAGNOSIS.

A fourth edition of Professor Vierordt's "Diagnostik der Innerer Krankheiten" has resulted from the remarkable popularity this work has enjoyed. It is needless to say that its reputation has been most worthily achieved. A large number of additions and alterations have been made in the new edition, and the work is abreast of the times in every particular. As a manual of clinical diagnosis Vierordt's work must easily rank foremost. It is a book no physician who has any pretensions to modernity can afford to be without. The work is amply and superbly illustrated.

A Clinical Text-book of Medical Diagnosis for Physicians and Students, Based on the Most Recent Methods of Examination. By Oswald Vierordt, M.D., Professor of Medicine at the University of Heidelberg, etc. Authorized Translation, with Additions by Francis H. Stuart, A.M., M.D., Member of the Medical Society of the County of Kings, New York, etc. Fourth American Edition, from the Fifth German; Revised and Enlarged, with 194 illustrations. Philadelphia: W. B. Saunders, 1898.

PRACTICAL THERAPEUTICS.

Dr. Hare's text-book of therapeutics needs no introduction to the student or practitioner of medicine, and the fact that it is now in its seventh edition shows that its merits have been sufficiently well recognized to make commendation superfluous. To the wise practitioner desirous of avoiding the dangers of overdosing, while possessing all the resources of the skilful therapeutist, this work will be found a reliable and steadfast guide. The student desirous of learning how to handle the materia medica will find this text-book equaled by few and excelled by none.

A Text-book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and Their Employment upon a Rational Basis. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, etc. Seventh Edition, enlarged, thoroughly revised, and largely rewritten. Philadelphia and New York: Lea Brothers & Co., 1898.

KLEIN'S HISTOLOGY.

Klein's Histology, which has long been a standard text-book, is now in its fifth edition. The work is clear, concise, and plentifully illustrated. Something over 100 pages, as well as over 100 new engravings, have been added to this issue.

Elements of Histology. By E. Klein, M.D., F.R.S., Lecturer on General Anatomy and Physiology in the Medical School of St. Bartholomew's Hospital, London, and J. S. Edkins, M.A., M.B., Joint Lecturer on and Demonstrator of Physiology in the Medical School of St. Bartholomew's Hospital, London. In one 12mo. volume of 506 pages, with 296 illustrations. Cloth, $2.00 net. Philadelphia and New York: Lea Brothers & Co.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The annual proceedings of the Medical Society of the State of New York consist of forty-four original articles covering the whole field of medicine. The papers are for the most part characterized by a high degree of ability and scientific attainment. The volume is very handsomely bound and clearly indicates that the society is in a prosperous condition.

Transactions of the Medical Society of the State of New York for the Year 1898. Published by the Society.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

The Value of Electrolysis in the Treatment of Urethritis Chronica Glandularis.

Mundorf, in the *New York Medical Record* of August 20, 1898, in a carefully prepared paper on the use of electricity in urethral troubles, says that two forms of chronic urethritis are recognized, viz., "urethritis chronica infiltrativa" and "urethritis chronica glandularis." By employment of the urethroscope these two forms can be readily differentiated.

Recognizing a condition in which the glands are simply involved in the inflammatory process, it is but natural that one would desire to treat them alone and not expose normal tissue to unnecessary irritation. Various methods to apply local treatment have been advocated. Some authorities have recommended the use of chemical caustics, others have claimed that good results follow the intraglandular injections of therapeutical agents, while a few have lauded the employment of the galvanic cautery. It was Oberlaender who, in 1889, first suggested electricity to destroy chronic inflamed urethral glands. For this purpose he constructed a unique contrivance in connection with his urethral endoscope. Notwithstanding this, in 1892 and in 1894 this authority dismisses the subject of intraglandular electrolysis with the remark that by it cure is retarded four or five weeks. In 1893 Kollman introduced a set of instruments, including an electric sound for intra-urethral work. This sound consists of a slender platinum rod, about six inches in length, and, with the exception of its point, is insulated by means of an india-rubber covering. Two forms are made, the difference existing in the distal extremity. For the purpose of destroying Morgagni's crypts, a sound with a blunt end is employed, while in the case of diseased Littré's glands a sharp-pointed one is used. The writer has found it rarely necessary to employ the blunt sound, the sharp end of the other answering for both.

In the opinion of the writer, notwithstanding the unfavorable result in a few cases, electrolysis is a valuable adjunct to the list (which perhaps is already too long) of remedies for the treatment of the glandular form of chronic urethritis. This therapeutical agent is certainly more within the control of the physician than any other form of treatment, and if its application be cautiously performed can result in no harm. For weeks one may inject solutions of nitrate of silver or other astringents into the urethra, and still produce no retarding effect upon the progress of the disease. The internal administration of drugs has proved of little or no benefit. The use of the galvanic cautery is dangerous, requires a local anesthetic, and causes unnecessary destruction of tissue. In the case of electrolysis, the operation is painless and does not require any topical anesthesia. Occasionally a patient complains of a slight burning sensation, but it is certainly not more than that often following

urethral injection of a mild solution of nitrate of silver. Regarding the strength of the current and the duration of its application, Kollman advises an amperage of four or five milliamperes and a seance lasting three minutes for each gland.

The writer reports seventeen cases in which this method of treatment was carefully followed, and with only one failure.

From an observation of over 400 cases of urethritis, in which different forms of treatment were followed, the writer arrives at the following conclusions:

1. In all cases of suspected urethral disease (excluding cases of acute urethritis) a careful urethroscopic examination should precede treatment.

2. As a rule, all forms of chronic urethritis can be cured by regular dilatations and urethral injections of a silver nitrate solution.

3. Electrolysis is indicated only in the glandular form of chronic urethritis.

4. Electrolysis will cure the larger proportion of chronic glandular urethritis.

5. If electrolysis fails the dilatation treatment is indicated.

6. In some cases of chronic urethritis, dilatation treatment preceding electrolysis will prove beneficial.

7. In those cases in which firm and dense cicatrices have developed in consequence of electrolysis, regular dilatations should be proceeded with.

8. During treatment, endoscopic examinations of the urethra should be regularly made, controlling thereby, under the direct guidance of the eye, the progress of the disease, and, according to the conditions found, modifying the treatment.

The Roentgen Rays in Spina Bifida.

Dr. Carl Beck, in the *Medical Record* of August 13, 1898, says that in speaking of spina bifida one is apt to think only of its cystic form and of its location in the lumbo-sacral region. But besides this most common type there are several others, which require to be distinguished before we can choose the proper therapy. Thus it cannot be a matter for indifference whether there is (1) a so-called simple meningocele—in other words, a hernia-like protrusion of the pia, containing cerebral fluid; or (2) a myelomeningocele, a frequent variety, which is characterized by the spinal cord expanding itself, like the optic nerve in forming the retina, around the protrusion, and, together with the pia, constituting the sac; or (3) whether there is a melocystocele—that is, a tumor caused by cystic dilatation of the central canal of the spine.

It is also important to discriminate whether the tumor is situated in the cervical, dorsal, lumbar, or sacral region. If situated in the cervical or dorsal region, the cord cannot protrude into the hernial sac, as it does in the lumbar or sacral region, which corresponds to the end of the cord. It is also desirable to know whether there is a hiatus in the spinal column, and how extensive it may be; and furthermore, whether or not the fluid contained by the tumor can be dislodged into the spinal canal.

In view of these anatomical distinctions, it will be easily understood that

simple meningocele gives the best chances of a cure. Whether injection treatment or extirpation, however, should be preferred is not yet agreed upon among the profession. I have cured three or four cases of simple meningocele by repeated aspiration, followed by the injection of a few grains of a ten-per-cent. iodoform-glycerin emulsion; and I generally prefer injecting to extirpating, provided the surface of the skin be normal. But if there be well-developed gangrene, or even any considerable abrasion of the epidermis, then septic infection of the cyst wall cannot be arrested unless immediate and extensive removal is undertaken.

On the other hand, myelomeningocele and myelocystocele offer a less favorable prospect. In these cases the injection treatment is always a failure.

According to the unanimous opinion of all authors known to Beck, one of the greatest difficulties encountered in the treatment of spina bifida is that its various types cannot as a rule be defined before operation. Between meningocele and myelocystocele, indeed, the certain distinction is often quite impossible. The use of the Roentgen rays renders with absolute distinctness not only whether there is an opening in the bone, but also tells of the presence and sometimes even of the expansion of the nerve substance in the sac. In those rare cases in which the presence of lipoma or fibromyoma is in question, it is again the skiagram which gives the needed information.

MEDICINE.

Medical Examination for Life Insurance in the Field.

Under this title Dr. C. E. Skinner (*New York Medical Journal*, August 13, 1898) contributes a very carefully prepared paper, in which he says that among the dyscrasiæ the tuberculous stands preeminent, the *bête noire* of life insurance companies. The tubercle bacillus is their most dreaded foe, and the likelihood of the existence of a soil favorable to its development is to be most carefully investigated. The large, bright eyes, delicate sensitive skin, thin figure, narrow and hollow chest, and clubbed fingers should lead one to look during the physical examination for scars of old cervical lymphatic abscesses, to scrutinize rigidly the individual's past history with reference to bone, joint and intestinal affections, the lungs, and his ancestral characteristics.

The drug habit with which we come most frequently in contact is that of the tobacco user, although this habit furnishes a very small proportion of the causes of rejection, and the author believes, in spite of sensational newspaper reports to the contrary, that constitutional impairment from tobaccoism is rare. The cigarette is popularly believed, he thinks with reason, to be responsible for a large majority of the cases that do occur, and the yellow stains upon the fingers of the cigarette smoker should lead us especially to be on the lookout for signs of excess. This is not because the cigarette is in itself more harmful than the cigar or pipe, but because the cigarette smoker usually consumes more tobacco than he who uses the weed in other forms, and also because he inhales the smoke, thereby absorbing much more of the toxic principles than can pass through the buccal and nasal mucous membranes.

Excessive inhalation also tends to produce low grades of chronic laryngeal and bronchial inflammations.

Next in frequency we shall meet with the habitual ingestion of alcoholic beverages, and this weakness will not infrequently give us cause to question the applicant's fitness for insurance. It is not the man who "gets drunk occasionally" that will require our most earnest consideration; it is he who styles himself a "moderate" drinker. When the ingestion is excessive it will betray itself by the characteristic odor in the breath, injected conjunctivæ, and the dilated and congested capillaries in the skin, especially about the end of the nose and over the cheek bones. Irritability of the nervous system and muscular tremor may be present, but are more frequently absent during examination.

These are the individuals who develop cirrhosis of the liver, nephritis, etc., and who rapidly succumb to pneumonia, typhoid, and other exhausting diseases. Here, again, we must depend, when judging of excess, upon the physiological evidences present rather than the absolute quantity consumed per diem, to say nothing of the unreliability of the "moderate" drinker's statements as to quantity.

The morphine *habitué* will not often try to secure a life insurance policy.

The cocaine habit will so rarely come under the notice of the insurance examiner that it hardly deserves a mention. In a personal experience with several thousands of applicants from all grades of society the author has never met with a case. When it does obtain, however, the evidences of mental and physical degeneration will pretty surely be sufficiently pronounced to quickly attract the examiner's attention to the undesirable character of the risk.

Functional or Inorganic Heart Murmurs.

Frequent examinations of the healthy as well as the unhealthy individual applying for life insurance, writes Dr. Schroeder in the *New York Medical Journal* of August 13, 1898, have called attention to the fact that inorganic or functional murmurs occur more frequently and imitate organic murmurs more closely than most of the text-books would lead us to believe. In a large number of these cases it is difficult, and sometimes impossible, to determine at a single examination whether the murmur is due to a structural lesion or whether it is occasioned by some unimportant cause or temporary condition. The question is worthy of the consideration of both the general practitioner and the medical examiner, for erroneous diagnoses of heart affections have often resulted in much needless alarm and anxiety, have prompted the uncalled for administration of powerfully acting drugs, and have led to the loss of much good business by the insurance companies.

Adventitious heart sounds may be produced by a variety of conditions, such as pericarditis, pleuritis, and the action of the heart upon pulmonary cavities and consolidations, but those which properly come within the scope of this discussion are the hemic, cardio-respiratory, and dynamic murmurs.

The intracardiac murmurs of anemia due to blood changes are invariably heard at the base of the heart during systole, and are sometimes conveyed up

the arteries of the neck. They are produced at the orifices of the aorta and the pulmonary artery.

Cardio-respiratory murmurs are probably more common than any other abnormal heart sound not due to organic changes. They are always systolic and are heard most distinctly during inspiration, or at times at the end of a full inspiration. They are usually created by the forcible expulsion of the air from the air vesicles by the impulse of the heart; in some instances, however, the respiratory murmur itself may simulate a systolic heart murmur. Naturally, then, these murmurs are usually heard at the apex, but occasionally they are seated at the base. As a rule, the false murmur fails to modify the normal heart sounds during expiration, and at once disappears when the patient holds his breath, especially at the end of expiration, when the air vesicles are relaxed.

In concluding his article the author says that the subject is not of less importance because we are dealing with the exclusion rather than the existence of an incurable and dangerous condition. If the patient who suffers from disturbance of the heart action, "whether it be a mere consciousness of its abnormity, severe palpitation, or anginoid attacks," can truthfully be assured that his troubles are not mortal, a most important step is taken in the treatment.

Excessive Laughter the Cause of Heart Affection.

For a number of years special attention has been paid to heart disease due to injuries, such as direct blows and contusions. Of less importance and not so frequent are the heart troubles caused by concussions of the whole body or a part of the body distant from the heart. The equal shock sustained by bodies falling from a great height always allows that the heart may be injured directly—a tearing of the pericardium, heart muscle, or endocardium. Dr. Feilchenfeld reports a very interesting and rare case of a heart affection from an indirect cause.

A young, strong, well-developed girl of thirteen, menstruating six months, and of a lively disposition, had up to this time enjoyed good health. One evening, in company with other girls, she was relating funny stories, causing herself to laugh immoderately. Suddenly she ceased her convulsive laughter and began gasping for breath, coughing, and crying with pain. She was cyanotic, sitting up in bed, and complaining of a pain over the heart when the author arrived. The pulse was rapid and thready. Heart action weak and increased, but not enlarged. The heart sounds were indistinct; no murmurs could be heard. Camphor and morphine were given at once without any improvement. The attack lasted about twelve hours, almost without intermissions. The next day phenacetine was administered with good effect. She had four more attacks, but they were of short duration. The first two weeks she had attacks daily, then they would not occur for weeks, and later for months. At first nothing abnormal could be found on the heart, but later after every attack an enlargement of the left ventricle could be demonstrated. The second pulmonic was accentuated and a loud systolic murmur could be heard at the apex. Both dilatation and murmur disappeared in the course of

a week. As she has had no paroxysms in the last six months, the condition of the heart is now normal.

The significance of the case is as follows: On account of the excessive laughing the spasmodic contraction of the diaphragm caused a stimulation of the vagus nerves and then a paralysis. Therefore the first attack was accompanied with pain, coughing, dyspnea, and tachycardia. The paralysis of the nerve gradually improved from day to day, therefore the paroxysms continued until the nerve was again restored to its normal condition. The heart, weakened from the numerous attacks, became dilated. — *Deutsche Medicinische Wochenschrift*, No. 30, 1898.

The Future of the Barber.

The *Medical Press and Circular*, in commenting on the future of the barber, says: "The barber is usually an intelligent man, comparing favorably with those whose callings do not bring them into daily and hourly contact with many men of all sorts. Very little compulsion would be required to induce him to qualify for the practise of the science and art of hair-dressing. A smattering of anatomy and physiology, a few weeks passed in manipulating the microscope, and a modicum of instruction in the identification of the macroscopic lesions, would make an ideal barber of him, assuming, of course, that he has already received, or will shortly receive, the training which confers the dexterity characteristic of the perfect barber. Such a course of education would enlarge the horizon of his ideas, and his conversation might conceivably become almost interesting. Moreover, his advice as to the relative merits of this or that hair-wash would command respect on other than purely business grounds. We commend these observations to the professors of the tonsorial art, which has hitherto been allowed to languish as a trade, when it may conceivably be susceptible of attaining the dignity of a profession. To secure a permanent foothold to the tottering hair is as praiseworthy an achievement as to stop a carious tooth, and to diagnose the pediculus capitis infers a skill equal in its way to that of giving a name to the odium albicans. Why, then, should one calling be placed under the mantle of the General Medical Council, while the other is left out in the cold? The microbe of baldness would have been discovered years ago had barbers received this incentive to scientific observation, the more so as they have a vested interest in the hair of our heads, a denuded scalp defying their ministrations."

Kitchen Bacteriology.

A Königsberg doctor, Privat-docent Dr. Jager, says the *British Medical Journal*, recently gave a course of hygiene and bacteriology for ladies, which included practical exercises in applied bacteriology, for instance, in the preparation and preservation of food by methods used in bacteriological work. At the close of the lectures the hearers were allowed to invite their friends to an exhibition of kitchen products — some raw and some cooked — that had remained in a warm room for periods varying from five to sixteen days, and which were all found perfectly fresh and quite unchanged in appearance

and taste. Nor had any complicated procedure been required to attain this result. The method simply consists in: (1) The use of vessels with well-fitting, overlapping lids, instead of the inside lids used in kitchens all the world over, which allow stray bits of matter that may adhere to their rim to fall into the food; (2) avoidance of opening the vessels in which the food was kept, or where this was indispensable, careful manipulation as in bacteriological work; and (3) the use of cotton-wool as a covering. Cotton-wool lids had been specially prepared to fit the wide tops of the food vessels; they consisted of a circular disk of cotton-wool, tightly held between two metal rings, the outer of which formed the overlapping rim of the lid. It is to be hoped that Dr. Jager will find imitators and that "kitchen bacteriology" may become a study with ladies. Certainly there is much room for improvement in the old-fashioned kitchen methods to which our "family plain cooks" cling with such desperate energy, and which they seem to regard with an almost superstitious reverence.

Bicycle Riding.

Sehrwald, of Freiburg (*Archiv für Hygiene*, Bd. xxxii, 1898) comes to the following conclusions, after a careful study of the resistances to be overcome in riding a bicycle:

Those who ride for recreation, but not sport, seldom surpass a speed of twelve feet per second, or a distance of twenty-five to thirty miles on the level in a day. The distance of a trained rider should not exceed 105 miles daily, which is equal to a day's work of a strong working man. The maximal riding endurance of trained riders is on an average about 322 miles in twenty-four hours, and twenty-four miles an hour. The strength of the rider drops very much in the first hour, and then gradually after the fourth to the twenty-fourth hour.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,

Microscopist to Harper Hospital, Detroit.

Pathological Changes in the Penis of Old Men.

N. Schurigin (*Wratsch*, 1897) examined, microscopically, the penis in twenty-one old men, between the ages of fifty-five and eighty-eight, and in whom all diseases pertaining to that organ could be excluded. The subjects chosen were men suffering from short illnesses before death. The greatest change was found in the blood-vessels. The arteries were sclerotic, the intima thickened, and sometimes showed hyaline degeneration; the unstriped muscle fibers in the media were atrophied, with formation of connective tissue. The neurilemmæ of the nerves were thickened, and the nerve fibers decreased, the dorsal nerve being an exception, showing no change. The nerve ends and tactile corpuscles atrophy before the sixtieth year. The walls of the cavernous spaces are thin and contain little unstriped muscular tissue and much connective tissue. In three cases fatty degeneration of muscular tissue was found.

A Diffuse Hypertrophy of Both Breasts in a Virgin.

Professor Fraenkel, of Breslau (*Deutsche Medicinische Wochenschrift*, June 23, 1898), observed a case of a virgin, whose right breast was fourteen inches and the left seventeen inches in diameter. The greatest circumference of either was about forty five inches. Otherwise the woman was of slight build, about thirty years of age. The administration of mammary extract was without result. The author attributes the cause to a prevailing amenorrhea with a slight atrophy of the uterus and ovaries, resulting in hyperemia and hypertrophy of the glands.

On Increased Heat Production in Fever.

Krehl and Kratzsh (*Archiv für Exper. Path. und Pharmakol.*, July 26, 1898), on experimenting with rabbits, found that the temperature of the liver is higher than that of the blood in the aorta. This proved to be the case in the normal condition as well as in fevers artificially produced. A thermic influence of the nervous system on the liver not being probable, the authors conclude that the liver substance partakes in the increased heat production of the body with the muscles, spleen and kidneys.

THERAPEUTICS.

The Treatment of Chronic Rheumatic Arthritis with Hot Air and Congestive Hyperemia.

Lately heated air has been widely recommended in chronic diseases of the joints. Dr. August Bier, the author, has used this treatment for tubercular joints for several years without any promising results. His experience with this treatment has been more favorable in chronic rheumatic arthritis. Marked improvements were noticed in stiff and painful joints. The men who have used this method credit the heat itself, the diaphoresis, the hyperemia, and the destruction of bacteria from heat. There is no doubt that painful and stiff joints are more comfortable in a warm condition and a warm surrounding than in a cold one. The author credits the hyperemia with the beneficial effects obtained, and gives the following reasons:

1. A limb which has been subjected to heat for a number of hours is reddened and swollen.

2. With congestive hyperemia the same results are obtained as with heat.

3. If hot air be used for a number of hours daily, the hyperemia does not disappear during the intermissions, but the limb remains congested and edematous.

Therefore the author recommends the use of congestive hyperemia, as its application is more practical and the results are the same, namely, relief from stiffness and pain. If the following method is used correctly, beneficial results are sure to follow: Take an affection of the knee-joint for an example. Bandage the leg snugly from the toes to about six inches below the joint with a cotton bandage, so that the healthy parts will not be involved by the hypere-

mia. Above the joint apply a rubber bandage, first using some cotton or lint so that the bandage does not lie next to the skin. This bandage should not overlap each different layer, but should cover each layer exactly, so that the space occupied is just the width of the bandage. Draw it firmly until the parts are of a dark, bluish-red color. If any part of the limb gets cold the bandage must be loosened. Try and get the greatest congestion without shutting off circulation entirely. In some cases it is possible to get a high degree of congestion with the first application; in others the bandage must be gradually tightened. The first bandage may remain several days without removing it. Then it should be worn at night or day only. Usually an hour after the application the joint is painless, and after several days the stiffness disappears.—*Munchener Medicinische Wochenschrift*, No. 31, 1898.

Epistaxis and Hemoptysis.

Professor Tripier, of Lyons (*Medical Press and Circular*, Aug. 31, 1898), has been in the habit of treating gastrorrhagia due to ulcer of the stomach with enemata of hot water, and in the majority of cases with success. Lately he has tried the serum hemostatic agent in a similar manner for epistaxis and hemoptysis, and in both cases the results were very satisfactory. A man suffering from cirrhosis of the liver had frequent attacks of epistaxis, and the previous month the bleeding from the nose returned several times a day, in spite of all the means usually tried in such cases. An enema of hot water (122° F.) was ordered night and morning, and continued for five or six days. The day following the first enemata the epistaxis ceased, and had not returned up to the time of writing (four weeks). The other case was a woman, aged thirty-five, presenting all the signs of incipient tuberculosis. For several days she had attacks of hemoptysis, for which ergotin and ratanhin were tried in vain. Enemata of hot water given three times a day immediately checked the bleeding, which, by its abundance, had threatened the life of the patient.

The Prevention of Sore Nipples.

Mabbott, in the *New York Medical Journal* of September 10, 1898, recommends the use of lanolin for the prevention of sore nipples. He instructs the patient to begin its use from four to six weeks before the expected date of confinement and continue until delivery. Every night at bedtime a small portion of lanolin is thoroughly worked into each nipple with the thumb and fingers, special pains being taken to rub it well into any folds or crevices, especially in the case of depressed and sunken nipples. This kneading process has the effect of forming the nipple—partly by pulling it out and partly by causing erection—and this in itself develops the nipple and promotes facility of nursing. Lanolin is superior to other substances which might be used for this purpose by reason of its combined adhesive and penetrative qualities, promoting the nutrition of the epidermis. However, perhaps the most useful purpose of the lanolin is associated with its moral effect in furnishing a substance to remove in the morning. Lanolin resists saponification and requires considerable time for its removal.

The Treatment of Ringworm.

Thomas (*British Medical Journal*, Aug. 27, 1898) recommends his modification of Sabourand's treatment for tinea tonsurans: (1) The whole scalp is painted with tincture of iodine and then carefully dried. By this each diseased patch is stained a darker brown than the healthy skin, enabling one to attack places at once which would be otherwise invisible. A circle is drawn with a blue pencil around each ring, and the hair epilated for one centimeter outside of it, the rest of the hair being cut short. (2) The patches are painted every day with the iodine until a certain amount of irritation of the skin is set up. The treatment is then suspended until the skin has regained its natural appearance and the hair begins to grow again. (3) The patches are shaved and daily painting is resumed, active treatment thus alternating with abstention until microscopic examination shows the cure to be complete. The only difficulty about the course is to recognize the exact time for temporarily leaving off the painting, since if continued too long a pustule results and causes delay.

The above treatment is especially applicable to the more common variety of tinea caused by small spores.

The Use of Iron Subcutaneously.

Birgelen, of Penzoldt's clinic (*Munch. Med. Woch.*, July 26, 1898), says that there are a great number of cases where iron is indicated, but where it is impossible to give it by the mouth. Subcutaneous injections were used by the author in four cases—a ten-per-cent. watery solution of ferrum citricum oxydatum, but later a similar solution of ferrum citricum ammoniatum. Only ordinary precautions were used, and the injections were made in the arm. The solutions were sterilized before being used, and none older than ten days were made use of. Slight signs of local irritation appeared, especially when the first named salt was used. In the first case the good effects were clearly shown by this method of treatment; in the second the improvement was not so marked; the third failed entirely to respond to the treatment; while the fourth had to be stopped on account of the formation of abscesses.

The writer thinks that the value of the treatment, despite the failure encountered, cannot be denied, and that only when treatment by mouth fails should it be resorted to.

THE MEDICAL AGE

VOL. XVI. DETROIT, OCTOBER 25, 1898. No. 20.

ORIGINAL CONTRIBUTIONS.

DRAINAGE IN SUPPURATIVE APPENDICITIS, WITH REPORT OF CASES.*

BY ANGUS MC LEAN, M.D.,

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The subject of drainage in suppurative appendicitis is always an interesting one, for it cannot be dispensed with and is a part of the technique about which little is said. There are two well recognized methods of drainage used at the present time—tubular and capillary.

For tubular drainage either the soft-rubber or the glass tube is used. The bone tubing, etc., have been discarded. Rubber tubing is more irritating than glass, while either may produce intestinal or vesical fistulæ from continued use. To overcome these objections as much as possible operators recommend covering the tubing with a few layers of gauze.

For capillary drainage, sterilized gauze, iodoform gauze or sterilized wicking is used. The most convenient strips are those from sixteen to twenty inches long and six inches wide, each folded twice upon itself with a stitch passing along the free border. The plain gauze will absorb fluids more rapidly than iodoform gauze. To get the best effects from the drainage the free ends should be lower than the internal portion, thereby adding syphonic action to that of capillary traction. A strip the size described above will empty a pint basin of aqueous solution in about twelve hours if the free end is lower than the basin, and if the free end is higher than the level of the solution the gauze becomes saturated and remains so, but should absorbing material be placed upon this saturated portion it will also become moistened. I have placed a gauze strip of this kind in an ordinary glass of water, allowing the free end to extend two or three inches lower than the bottom of the glass, and had it empty the glass in a little over an hour. Pressure interferes very little with the capillary action of the gauze. I have placed a glass of water on a table and in it the end of a gauze drain, the free portion lying on the table, and across the free portion upon the table placed a wooden block an inch in width, and on the block placed a ten-pound weight, without materially decreasing the flow.

In experimenting with gauze drainage in the following artificial serum

*Read before the Detroit Medical and Library Association, Oct. 10, 1898.

(formula of B. M. Richardson) the serum kept at a temperature of 100° F., I have demonstrated that a drainage strip will absorb about one-half ounce per hour, and were four strips placed in a cavity this would absorb two ounces per hour, or a quart and a half in twenty-four hours. This should thoroughly relieve the cavity of any excessive transudate.

White of egg	1 ounce.
Common salt	1 drachm.
Sodium phosphate	1 scruple.
Clarified fat	1 ounce.
Glycerin	2 ounces.
Water	q. s. ad 1 pint.

If the abdominal cavity is to be drained, strips of gauze are passed in different directions, brought out at the opening and fastened together. The external portion should be of such length that when brought down over the side of the abdominal cavity the free end is lower than the internal portions, thereby obtaining freer drainage.

The method of Mikulicz is used in draining large cavities and is referred to as gauze tampon. The tampon is made by taking a piece of iodoform gauze about eighteen inches square and fastening to the center of it an aseptic silk thread. The corners are drawn together, thus forming a pouch, the lower portion of which is carried into the cavity by the use of long forceps, the free end of the thread extending from the mouth of the pouch. This is then filled with strips of gauze, which can be removed from time to time without disturbing the walls of the pouch. The pouch is removed by making traction upon the thread, thus freeing it from the bottom of the cavity first.

There is serious objection to the free use of iodoform gauze on account of the absorption of the drug and its consequent influence upon the patient. Where extensive drainage is necessary the sterilized gauze is much safer. A convenient and safe gauze drain is made by rolling a piece of absorbent gauze upon itself until it is about the size of your finger, and around this roll a piece of Lister's protective silk, leaving half an inch or so of the gauze free at each end. The protective silk prevents adhesions, for when gauze is left in contact with the tissues for some time adhesions form, which may prove troublesome and be followed by hemorrhage.

Both the tubular and capillary methods of drainage may be used at the same time as the so-called "mixed" or "combination" drainage. A rubber tube and a strip of gauze are often used in the same wound, or where a medium-sized glass or rubber tube is placed in the peritoneal cavity a narrow strip or two of gauze is passed through the lumen. This combination is very convenient in draining the pelvic cavity. The inflammatory products are freed from the tube by the gauze, which does away with the troublesome method of emptying the tube every hour or so with the syringe. These strips in the tube can be changed, when necessary, without any inconvenience to the patient. No drainage should be kept *in situ* longer than actually required, for the sooner the external wound is allowed to unite the better will be the union and less danger of a hernia following.

Case 1.—Mr. D——, aged nineteen, had been suffering with pulmonary

tuberculosis for about two years, with a temperature of 100° F. continually. He complained of pain in the right iliac region for about a month, accompanied by occasional vomiting spells. The pain became more severe and he was confined to his bed when I saw him with Dr. John L. Chipman. There was then marked tenderness over the region of the cæcum, and he had a temperature of 103° F., pulse 120. He was removed to Harper Hospital, and after preparation a low incision was made on the inner side of the crest of the ilium and Poupart's ligament. A large abscess cavity was opened, and upon examination it was found that the appendix had sloughed off close to the cæcum and the cavity contained considerable fecal matter. The stump of the appendix was ligated beneath its peritoneal coat and its free extremity treated and covered by its serous coat. The cavity was emptied of its contents, but the free portion of the appendix was not found, and for fear of disturbing the wall of the abscess cavity no further effort was made to discover it. The cause in this case was evidently tubercular, as the patient was suffering from general tuberculosis. A Mikulicz tampon similar to that described in this paper was used. The strips of gauze in the pouch were removed twice a day and fresh ones inserted, and on the third day the pouch was removed entirely, two strips of iodoform gauze and a rubber tube being substituted. Although the patient's temperature was not below 100° at any time, he made a good recovery and left the hospital in three weeks.

Case 2.—Mr. R——, aged thirty-two, a large, stout man, had been sick for several days when I was called to see him, and upon examination I found he had a severe attack of appendicitis. The abdomen was very much distended, but he did not complain of pain and appeared to be in a toxemic condition, with a temperature of 104°. The usual preparations for a celiotomy were made and the patient anesthetized. An incision was made along the outer border of the rectus muscle (right side) and a quantity of sero-sanguineous pus oozed from the opening. The appendix was perforated and its contents had escaped into the free peritoneal cavity. The diseased appendix was removed and stump ligated. The peritoneal cavity, which had become generally infected as a result of the rupture, was now cleaned out as well as possible with pledgets of dry sterilized gauze. A large rubber drainage tube with three or four layers of gauze wrapped around the external surface was passed down into the pelvic cavity and a strip of gauze passed through its lumen. Several strips of gauze were now passed into the cavity in different directions, one passed across under the transverse colon, one towards the left iliac region, and one up along the ascending colon, and one of iodoform gauze packed in around the region of the cæcum. The free ends of the different strips were fastened together and brought well down over the lateral wall. The rubber drainage was fastened in place and a couple of silkworm sutures passed through the upper angle of the wound. Over this was placed a large hygroscopic dressing. The dressings were changed about every four hours during the first day and the rubber tubing emptied by aspiration. At the end of twenty-four hours the different strips were pulled out a short distance. This was done to prevent adhesion to the adjacent tissues. At the end of forty-eight hours the rubber tubing and strips were removed and a narrow

strip of iodoform gauze placed in the track of the rubber drainage, which was removed in a few days. The patient made a good recovery.

Case 3.—Mr. B——, aged twenty-two. I saw the patient with Dr. Albert Field; we made a diagnosis of appendicitis, and an operation was advised. The patient had a temperature of 100°, with very little pain, and the parents objected to any operation. The young man was kept under observation for about a month. He became much emaciated and quite weak during this time, and a marked swelling developed just above Poupart's ligament. The parents still objected to the administration of an anesthetic, but consented to our trying local anesthesia. The Schleich method was used and an incision made over the most prominent part of the swelling and a large abscess cavity opened; this discharged pus and fecal matter, showing there was a communication with the intestine. The cavity was washed out and packed with iodoform gauze, which was changed every day. The fecal discharge kept up for about a week and gradually ceased. The whole cavity filled in about six weeks and the patient was able to be about again. This was evidently a case of appendicitis where the appendix sloughed off or ruptured and a fecal fistula followed. This was the slow form of inflammation which we sometimes get in this region and was well walled off from the general peritoneal cavity.

Case 4.—Miss O——, aged fifteen. This patient was referred to me by Dr. A. P. Biddle. She had been sick several days when he first saw her and gave a history of pain in the region of the appendix, followed by vomiting, etc. She now had marked distention and tenderness of the abdomen, with a rapid pulse and a high temperature. She was immediately removed to Harper Hospital and prepared for operation. The incision was made along the outer border of the rectus muscle (right side), and on entering the cavity a quantity of sero-sanguineous fluid oozed out. The appendix was perforated and gangrenous. After the appendix was removed the peritoneal cavity was inspected and a diffuse septic condition was found. The abdominal cavity was well flushed out with warm saline solution and dried with sterilized gauze, and wound partially closed and free stitches inserted (silkworm-gut). A large glass drainage tube was inserted down to the floor of the pelvis, and through the tube was passed a narrow strip of iodoform gauze. Several strips were now introduced into the cavity after the manner employed in Case 2, with a similar external dressing (see accompanying figure).

The patient was very weak and appeared to be suffering from shock. Hypodermoclysis (subcutaneous infusion) was resorted to, and about a quart of normal saline solution injected. This procedure is very simple and easily carried out. The most convenient apparatus is an infusion needle or ordinary hypodermic needle with a few feet of rubber tubing attached. Many devices are utilized for this purpose, but the above will usually suffice. The saline solution is made by adding a teaspoonful of common salt to a pint of water and boiling it for about five minutes. The needle and tubing should also be boiled for about the same time. The boiling will not in any way injure the usefulness of the tubing. I have boiled rubber tubing for several hours without apparently affecting it. The solution when ready can be held a few feet above the patient and the end of the rubber tube placed in the fluid and used

as a siphon. The needle is inserted through the skin over the chest or dorsal region while the stream is passing through it, and the fluid allowed to escape in the subcutaneous tissue. Two or three injections may be made to insert the desired amount. This not only stimulates the action of the heart and increases the volume of the pulse, but it increases the secretions and excretions and dilutes the toxin, assists in freeing the system of its septic products, and should be used at intervals when indications for its employment exist.

The patient rallied in about twelve hours. The dressings were changed several times and the glass tube evacuated of its contents. The drainage was removed at the end of thirty-six hours, with the exception of a small piece of gauze. The wound was drawn together by free stitches and allowed to unite. The patient made a good recovery.

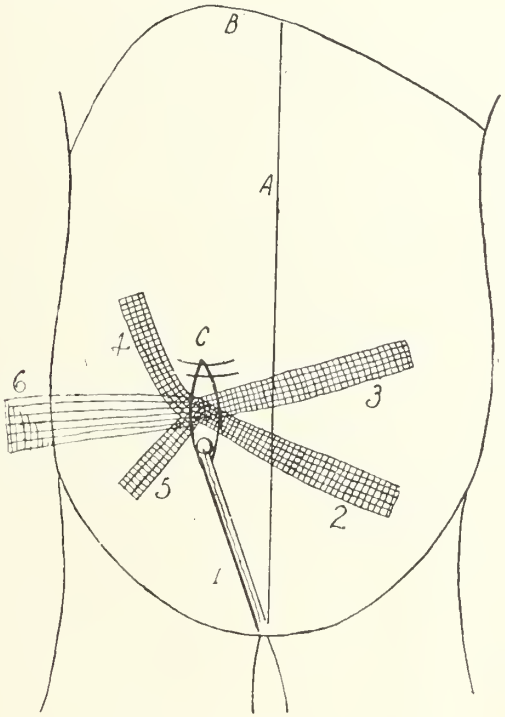

Diagram showing drainage in position: A, Linea alba; B, diaphragm; C, incision. 1, drainage tube with gauze in lumen; 2, 3, 4 and 5, gauze strips; 6, free ends united and brought over lateral wall of abdomen.

Case 5.—Mr. G——, aged twenty-eight, was taken with pain in the right inguinal region, followed by nausea and vomiting, etc. He was removed to the hospital and prepared for operation. The usual incision was made and a small pus cavity opened. The appendix was swollen and inflamed, but not perforated. It was removed and wound closed, with the exception of a small rubber tube encased in iodoform gauze. This was removed in a few days and the wound healed nicely, but he complained of slight pain in that region and his temperature kept a little above normal. He left the hospital and had been

home about six weeks when I was sent for again. He had a temperature of 103°, with pain and tenderness in posterior portion of right hypochondriac region. This continued for several days, and he again returned to the hospital. An incision was made along the outer margin of the quadratus lumborum muscle (right side) just beneath the lower rib. An abscess cavity containing very offensive pus was discovered beneath the ascending colon in the cellular tissue. This apparently had no connection with the peritoneal cavity. The cavity was washed out from day to day through a large rubber drainage tube and he gradually improved, leaving the hospital in about four weeks, wound healed up. He did not feel strong and complained of pain on the right side after walking or riding for any length of time. He had a slight temperature and in a few weeks was troubled with a hacking cough. These symptoms continued for about a month, gradually becoming worse, and on close examination dulness and a slight fulness were discovered over the base of the right lung. This was treated with ordinary remedies, but the trouble increased. An opening was made between the ninth and tenth ribs near the angle and a quantity of pus escaped through the wound. A small rubber drainage tube was inserted through the opening and kept in place for several days, free discharge keeping up most of the time, then ceasing, when the wound was allowed to heal.

This case was the mildest and simplest of the group to commence with, but developed into the most severe and tedious of the lot, and I think on account of not having sufficient and complete drainage at first. There probably were at this time some of the products of inflammation running around the lower and posterior portion of the cæcum, which liquefied and spread along the subserous connective tissue, up behind the ascending colon between the walls of its mesocolon, and by contiguity reached the subserous tissue of the costo-diaphragmatic cul-de-sac. Had a strip of gauze been placed around the base of the cæcum and left in position for twenty-four or thirty-six hours all this after trouble might have been avoided.

The following conclusions are adduced:

Where pus is present, tubing should be used, for gauze will not free a cavity of pus.

Where inflammatory transudate or exudate is present gauze proves the most satisfactory.

Where gauze drainage is used in the peritoneal cavity the external end should be lower than the internal, allowing much freer action.

Mixed drainage is to be recommended where septic peritonitis accompanies suppurative appendicitis.

Drainage should be dispensed with as soon as possible and the external wound allowed to unite, for the sooner the union the better, and the chances of a ventral hernia following are less.

THE NEUROSES.

BY D. L. MILLER, M.D., GOSHEN, IND.

It is my purpose to contend briefly that certain diseases, defects, and vices, many more than are usually classified under this head, properly belong to the neuroses, and I trust that the correlation of the vices with insanity and the neuroses proper will not prove altogether shocking, for it is part of my purpose to maintain that drunkenness, vagrancy, pauperism and crime are often due to disease, and are not distinctly related to hysteria or insanity.

Eccentricity, genius and enthusiasm all spring from the same soil and grow side by side, between which there is a close genetic relationship, each growing out of and at the same time preceding the other, each the result of a weak, deformed and oftentimes an inherited malorganization of the nervous system. The insane asylums of Indiana, notwithstanding the recent acquisition to their numbers, are filled to overflowing. More than fifteen hundred insane people were admitted during the past year. Seventeen from the county of Elkhart, for want of accommodation and other reasons, remained at home.

The insane portion of our population is no insignificant factor, and we are appalled at its magnitude and wonder what the end will be; yet has it ever occurred to you how few of these are hereditary — that is, how few are descendants of insane parents? I commend to you the study of the family histories of the insane you may know personally, or through history, as both interesting and instructive; such an investigation will convince you that insanity seldom grows from its own seed, that it is much more frequently preceded by and associated with eccentricity, genius, enthusiasm, and by that instability of purpose, weak moral sense and strong appetite that breeds drunkards, paupers, and criminals. To us, "American fidgets" is an inheritance. It was a "fidgety" stock that first settled this country, and the exciting events that have followed in such rapid succession tended rather to increase than to diminish this tendency. The early struggle of our forefathers, the long and exciting period of the revolutionary war, the fierce and bloody conflicts with the Indians, the scramble for California gold, the late rebellion, and the struggle for the acquisition of wealth have not only kept us on the verge of insanity, but excited the curious, the anxious, the nervous, the malcontents and the discontents of every nation of the globe.

Descending from such a stock as this, is it any wonder that we are a nervous people? Another important factor in the production of the neuroses and eventually insanity is enthusiasm, and if you are inclined to be skeptical on this point you will only have to follow in the wake of some great political campaign, some religious crusade, some anarchist tidal wave, labor agitation, or any of the so-called reform movements, and note the effects upon the participants, especially of the neurotic type, to be convinced of the truthfulness of this assertion. Every four years finds us in the midst of the excitement of a political campaign. The great political parties meet and name their standard-bearers, which always is a signal for a fierce conflict. If this is not insanity, it at least breeds insanity. It not only breeds insanity, but with it and after it comes that wrecked nervous system, that instability of purpose,

that restlessness, that discontentedness that breeds a group of nervous diseases, including drunkenness, vagrancy, and crime.

The insanity of one-fifth of all those committed to asylums is said to have originated in religious excitement, such as the great revivals and crusades that periodically sweep over this country. There is always an increase of insanity and all of the nervous diseases, showing the mischief they have done. I say this with no thought of casting any reflection on religion. In denouncing religious enthusiasm I do not refer to religious zeal or steadfastness of purpose. The enthusiasm that I denounce as a disease is that wild, ecstatic kind, that dominates and runs away with its victim. It is this that is responsible for the calamities that follow religious excitement. The enthusiasm manifested in the great agitations, such as the Coxey movement, is another source of evil to the neurotic type. They come back as tramps and vagabonds, more restless, more dissatisfied, more prone to be vicious and worthless than ever before. And then the great labor strike of Chicago, that came near shaking up the entire labor world, has left its footprints on its victims. I doubt whether there was a man, woman or child who took a prominent part in that great strike that did not pay for it in the development or the aggravation of some nervous disease.

I have several times referred to drunkenness, vagrancy, pauperism and crime in connection with the neuroses. Time will not permit me to follow this subject to the end of my desires. I must content myself with the mere statement and emphasize the fact that it cannot be a mere accident that so large a percentage of our drunkards and criminals are descendants of neurotic stock.

I now come to the most incomprehensible portion of my subject, and that is the relationship that exists between the neuroses and eccentricity and genius, and yet if you show me an eccentric individual or a genius I will show you a family history of marked neurotic type. Byron was both eccentric and a genius. A more typical example of a genius the world never produced than Napoleon, and while his father showed no signs of the neurotic temperament, his mother was mannish, quarrelsome, and miserly. The mother of Alexander, called the Great, was a woman of pronounced neurotic type, possessed of savage energy and pronounced superstitions. Our own Andrew Jackson, if not a genius, was at best a bad nervous organization. Victor Hugo, Poe, Cowper, in fact, nearly all the so-called children of genius, as well as many of the eccentric crowned heads of the Orient, show family histories and descendants treading dangerously near the border-line of insanity. It is impossible to study biography aright without perceiving that eccentricity and genius are developed from the same soil as the neuroses.

It will possibly be too much to expect that the time is near at hand when all the diseases, defects and vices enumerated will be turned over to the doctor as his legitimate field, and yet we must admit that great strides have been made in this direction. The time was when all diseases were considered peculiar beings or things with special properties or powers that had to be exorcised or conjured away. The sick and the afflicted, the lame and the halt, instead of going to the physician to have their deformities corrected and their

diseases eliminated, flocked to the king to be cured with the royal touch. And less than a decade of years ago consternation would have been aroused had we claimed the right to prescribe for the inebriate. Then why should it be too much to expect that the time will come when we shall claim the right to prescribe for many of our sinners, paupers, and criminals, for it must be obvious to us all that at least many of them are congenital cripples that no law can help.

If the boards of health can say to this man, "You are suspected of being affected with some fever germ or smallpox virus, hence you are a dangerous individual and not a fit subject to run at large, and we are compelled to quarantine you," why not with equal propriety say to the fanatic, to the agitator, to the enthusiast, who go up and down the length and breadth of the land preying upon the susceptibility of our nervous people, "You, too, are dangerous characters, creating a restless, dicontented, nervous race?" Or to the drunkard, "You are a menace to the rising generation, your blood shall not flow in the veins of posterity; therefore we will build an asylum for you." Or again, if our authorities can say to a ship-load of immigrants to-day, "You are from a cholera infested region, you are in danger of contaminating our people, we cannot allow you to land on our shores," why not say to another load to-morrow, "You come to fasten upon us vices with which we are already cursed, you must not be allowed to land?" In some countries of Europe every man who travels is compelled to carry with him a book in which is inscribed practically his history, where he belongs, for whom he has been employed. I would like to see it imperative upon every individual, before landing on our shores, to give a full and complete history of himself, and every individual who could not furnish satisfactory evidence that he was entirely free from any contamination, not only with smallpox or cholera, but from insanity and the neuroses, including drunkenness, vagrancy, and crime as well, should be compelled to return to the country that was responsible for his creation.

Or, if the picture is overdrawn, and I have been treading beyond the pale of possibilities, if nothing can be expected in this direction, we can yet accomplish something by advocating and practising moderation — moderation in business, in our mad rush for wealth, in religion and politics. Instead of spending seven days each week in a mad rush for wealth for six years, only to spend the seventh in some high-priced sanitarium in a vain effort to regain in one year what six years of this high-pressured life cost our nervous system, why not spend the one year at home, by taking one day in seven for recreation, one day in seven away from the cares and worry of business? It would require no more time, be less expensive, and laden with much better results. A closer observance of the Sabbath would be a national blessing. Our health demands it and posterity depends upon it. And then, instead of throwing our food in our mouths as though we were shoveling coal in a fire-box, and running to our business like one trying to catch a train, why not eat and walk at a pace that is compatible with health? Be zealous in religion and politics if we will, but let it not be of that wild and ecstatic kind that rides and dominates its victim.

And then, again, though I am reasonably certain that the time never will come when the same care and attention will be given to the propagation of the human family that is devoted to the breeding of our domestic animals, and I have little hope that natural fitness and adaptability will ever play a very important part in our courtships and marriages, yet I believe that some good can be accomplished by education and by impressing upon the minds of the rising generation the fact that blood will tell, and often even far-away taints declare themselves; that marriage in a highly neurotic family is extremely dangerous. Teach our daughters that want, abuse, neglect and final abandonment are not all the evils that follow the marrying a drunkard or a criminal. Impress them with the fact that if they do not want to entail upon their offspring a proneness to drunkenness, vagrancy, insanity, and crime, they must beware of the inebriate and the criminal.

INFECTIOUS DISEASES.

BY H. M. BRACKEN, M.D.,

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It goes without saying that the funeral director or embalmer plays a very important part in the care of those who have died of an infectious disease. A physician may have exercised the greatest care during the lifetime of the patient, to prevent any possible spread of infection. He may have been well supported in his watchfulness by skilful nurses and careful relatives. All this watchfulness may go for naught should the remains of one who has died of an infectious disease fall into the hands of a careless undertaker. Again, the whole responsibility of preventing an epidemic may fall upon the undertaker, for a patient may have died in some remote place where there has been no physician in attendance, where the diagnosis of an infectious disease has not been made, and where the friends throughout the entire neighborhood are about to visit, or already are visiting, the bereaved family. The undertaker with some familiarity with disease through much contact with the dead may be the first one to recognize in the remains of such a case the evidence of diphtheria or other dangerous disease, and may by a timely word place affairs in their proper relationship.

The question naturally arises: Where does the funeral director's responsibility begin? There can be but one answer, and that is, where the doctor's responsibility ends. There has been much joking about the undertaker finishing up the work begun by the doctor; but all joking aside, there are two responsible parties in every case of death from infectious disease—the physician and the undertaker. The physician has done his best, be that ever so imperfect. His labor has been in vain. His work is finished. The responsibility shifts to the other party, the undertaker. The support that had been given the physician, in his effort to prevent the spread of the disease to parents or nurse, is transferred to the undertaker. The difficulties that the physician may have had to contend with in dealing with an infectious disease in the

home of the ignorant, the vicious or the poor are as truly transferred to the undertaker when death comes to the patient; and with this transfer the dangers may be greatly intensified, for we all know how reason is thrown to the winds in many instances, and friends and neighbors rush into the death-chamber, impelled by feelings of friendship or curiosity, regardless of all danger to themselves or others.

Let us consider briefly the duties of the undertaker. He must protect himself. In order to do this, he should carry with him certain clothing and disinfectants. His head should be covered, by preference, with a cap that can be washed. His beard (if he has one) should also be covered. The hands should be washed with an antiseptic before handling the remains, and at frequent intervals during the process of embalming. The face should also be washed with an antiseptic before and after the completion of personal contact with the remains. In dealing with disease prone to attack the air-passages, the undertaker should be careful to breathe through the nose entirely during his stay in the death-chamber, or preferably through a respirator, which should contain an antiseptic and should cover both nose and mouth. He should have a special bag, that can be easily and thoroughly disinfected, in which to carry his gown, head covering, towels, etc., and when his work of preparing the remains has been completed, after removing all these things and placing them securely in their special bag, he should see that they are promptly and properly cared for and disinfected at his place of business.

On entering the death-chamber, the undertaker should note the general condition of affairs. It will be necessary to place the remains in a proper position. It may be possible to stop at this stage until the room, with all its contents, has been disinfected. This is the most desirable precaution and can at present be easily carried out by means of formaldehyde gas. It is necessary to prepare the room, to some extent, for disinfection. Closet doors should be opened. Clothing and bedding in the room should be separated as much as possible and hung about loosely. Windows and doors leading from the room should be securely closed, and when all is in readiness the formaldehyde generator should be started and the gas conducted into the room by means of a small tube passing through the keyhole, or other small opening. Formaldehyde has a great advantage over sulphur in that it has practically no destructive action on furniture or clothing, and the room can be entered much sooner and with less annoyance after its use. It may be difficult to absolutely disinfect a death-room in a private residence by the use of formaldehyde, but the room is certainly made much safer than it would have been without such fumigation. This gas is also more active as a disinfectant than are the sulphur fumes, as ordinarily applied.

By preference, after the use of formaldehyde gas in a room, old articles liable to contamination with infectious material, that can be disinfected by heat, should be cared for at once. Things that have no value, such as rags, etc., should be burned. The bedding and clothing of the patient should be removed and placed in a disinfecting solution. The room may now be used for keeping the remains in, but should not be considered free from infectious material. This cannot be until the walls, floor, furniture, carpets, have been

thoroughly cleaned with disinfectants, and this cannot be attended to until after the funeral; but in the homes of those where the space occupied by the living is limited, this disinfection must be carried out as soon as possible. It is not the duty of the undertaker to superintend this house disinfection, but he can do much for his own and others protection in preparing the way for the sanitary authorities.

The preparation of the remains is an important work, the responsibility of which rests entirely upon the undertaker, and this must be done according to prescribed methods, as laid down by the new laws and rules in various States. The disinfection of the body must be as complete as possible. In treating the remains, the nature of the disease must in each case be kept in mind. We know that the chief danger from diphtheria is from the upper part of the air-passages, hence our first object in dealing with a victim of this disease should be to cleanse and close the nose and mouth. Typhoid fever has its chief lesions in the intestinal canal; hence it is necessary to cleanse and disinfect the entire alimentary tract and then to close all orifices with absorbent cotton. So, too, with cholera. Tuberculosis may have involved the lungs only, or it may have also been present in the alimentary canal as well. It will be necessary then to disinfect the thoracic cavity, the lungs, the respiratory tract, and the intestinal tract, in dealing with the remains of a tuberculous individual. Disinfection must not be limited to the parts of the body most likely to be infected; it must be general. Injections should be so made as to reach every tissue in the body possible. After all known means have been used for disinfecting the interior of the body, the exterior must finally be thoroughly disinfected. The hair must not be passed over lightly; it is a very probable retainer of infectious material.

The so-called exanthemata—scarlet fever, smallpox, measles, etc.—require most thorough disinfection of the entire exterior. It should also be borne in mind that so-called membranous croup must be cared for in all respects the same as diphtheria.

After all possible disinfection by injection and by external washing, and the possible escape of fluid from the cavities of the body has been prevented by the closing of all orifices, the remains are to be enveloped in cotton, at least one inch thick. Cotton is one of the best protectives that we have. It is impossible for the germs of disease to pass through a proper layer of this protective, so long as the cotton is dry. This last fact should be carefully noted, for if a body is so carelessly prepared that there is any escape of fluid from it after it has been enveloped in cotton, the moisture penetrating the cotton opens up a line for the escape of germs, and the time that has been spent in trying to make the remains safe has been wasted. If a body has been properly prepared after the manner I have outlined, there should be absolutely no danger of conveying infection from it, even though it should have no further covering; and this should be so, for in shipping bodies we must be prepared for all emergencies. A railroad wreck may occur, a casket may be smashed, leaving the remains exposed. Imagine the exposure to disease that might follow such an accident were the remains not properly prepared in the first instance and swathed in cotton.

But it is not sufficient to use disinfectants simply with the idea of destroying germs of the disease that has caused death. Putrefaction and the formation of gases must be prevented, else our work may all be for naught.

Having carried out the plan thus outlined, we may feel that the remains are suitably prepared and the death-room properly disinfected. Not so. Danger lurks everywhere about the house, and those diseases generally classed as contagious, such as diphtheria, scarlet fever, smallpox, measles, etc., demand the speedy and private burial of their victims. Reducing the dangers from the infection to a minimum in these cases depends entirely upon the undertaker, except in cities where a special inspector is detailed from the health office to guard the interests of the community. There must be prompt burial of the remains. Having been properly prepared, they must be placed at once in a casket and hermetically sealed. There must be no viewing of the remains permitted. There must be no public funeral. There must be no gathering of people in the death-chamber. The carrying out of these details rests upon the undertaker.

The undertaker's calling, then, is one of great responsibility. It is not simply self-protection that we are interested in. It is the protection of the public at large. It must be plain to us, then, that the special license about to be granted to embalmers by the State Board of Health of Minnesota should only go to such men as have, in addition to ability as embalmers, the honesty and integrity of gentlemen. With such a class of men the embalmers' profession will be exalted in the State of Minnesota, the interests of humanity will be served, and the sanctity of the home circle will be protected.

RADICAL OPERATION FOR INGUINAL HERNIA BY THE BASSINI METHOD.*

BY WILLIAM L. RODMAN, A.M., M.D.,

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The patient that I shall bring before you is a farmer thirty-one years of age, and has been for many years the subject of reducible inguinal hernia. He has never been able to retain his hernia by means of a truss, although he has tried many different patterns. They will hold it up for a time, but when he is either making muscular exertion or even while sitting quietly in front of the fire after he becomes thoroughly relaxed from the heat, there is a certain part of the hernia which descends. He told me the hernia came down while he was in the car coming to the city yesterday as the car was very much overheated. He has been a patient of my friend, Dr. Sarver, a former graduate of this institution, and it is through his kindness we have permission to present the patient before you.

This case is of more than ordinary interest to us, which is due to the fact that the patient has been treated by another method which has not been successful. He had been injected a number of times, and he says that as long as there was a lump from the swelling as a result of the injection in or

* Clinical lecture delivered at the Kentucky School of Medicine Hospital.

around the inguinal canal, the hernia remained up, but as soon as the swelling passed away, as it did after the expiration of two or three weeks, the hernia returned; therefore, as I say, the case possesses a triple interest to us. First, we find a clear and distinct indication for operation on the man on account of his occupation; secondly, his inability to control the hernia by any truss that he has been able to wear; and thirdly, on account of the fact that he has been operated upon by hypodermic injections, which have failed. This naturally brings up in your mind the question as to the value of this injection plan of treatment. Perhaps many of you know what my opinion of the plan is. It is in the first place unscientific; the present case proves that to you. In the second place it is positively dangerous, and in the third place it is very uncertain, unsurgical, and unsatisfactory. By this injection plan the needle of a hypodermic syringe is introduced to a point just above the sac, or some advise inserting it into the sac, and then pure alcohol, tincture of iodine, carbolic acid, white oak bark, or some one of the many substances, is thrown into the tissue, hoping thereby to cause inflammation which will throw out lymph, and this lymph will block up the inguinal canal. Now that is the theory of the injection method of treatment of herniæ. Does it ever cure? Yes, unquestionably, but it is only applicable to recent and small herniæ. Furthermore, it goes without saying that the injection treatment is only to be thought of in connection with reducible herniæ. It not only can do no good in irreducible herniæ, but harm would almost certainly be done by its employment. Why is it uncertain? Because of the fact that there will not be enough lymph of an abiding nature thrown out to block up the inguinal canal. Why then is it dangerous? Dangerous because of the fact that no one can tell whether or not the needle is in or outside of the sac, and therefore whether or not some of the iodine or carbolic acid or oak bark or other irritating substance shall or shall not pass through the canal and ring into the peritoneal cavity. Many cases have been killed on account of this accident. Therefore the injection plan is unsurgical, it is dangerous, it is unscientific, and if we have a better means, it should not be employed.

I emphasize these facts in connection with the subcutaneous injection plan of treatment, because it will be more or less popular in some of the localities which some of you will live in. You will find that some men in a certain part of the country, or in certain towns or cities, have a great reputation for curing hernia without the use of the knife. The statement is made by a great many people that hernia can be cured without the use of the knife, just as they claim that piles can be cured without the knife.

I wish further to state that while there may be a distinct indication for the subcutaneous or injection plan of treatment in hernia, unfortunately this plan of treatment has been relegated almost entirely to quacks, charlatans, or empirics; therefore you should be very cautious how you advise the method, because to advise it is almost to proclaim yourself a quack. We admit that it will cure a certain number of cases; the percentage of cases is small, however, and they must be selected—as I say, they must necessarily be small and recent herniæ.

It will not, I take it, be necessary for me to go into the elementary details

and explain to advanced students what we mean by the contents of the sac of a hernia; you understand that. You know that authorities teach that all the viscera may at times be in the hernial sac, and that the latter was always composed of the parietal layer of peritoneum.

It will hardly be proper for us to-day in a clinical lecture to take up all the indications for the radical cure and operation for hernia. Suffice it to say that the case in hand is a suitable one, for reasons that we have already given. He is a laboring man; he is bound to work, to make his bread by the sweat of his brow; he has made use of all kinds of appliances and trusses to keep his hernia up; strangulation is imminent, and realizing that, and after trying other measures which he considers less dangerous, he now comes and asks that a radical operation be done.

What are the radical cure methods? We have spoken of one, viz., the injection plan. Next comes the truss, but you say does a truss ever cure a man of hernia at this age? Most positively not, not once in ten thousand times. Therefore it is out of the question to lead a man of this age to expect any betterment of his condition, to say nothing of bringing about a cure, by the means of a truss. In children under ten years of age a satisfactory cure is often accomplished by means of a properly applied truss. Statistics of children's hernia clinics of the world show that sixty-three per cent. of cases are cured by means of trusses. The other thirty-seven per cent. will not be cured, and this is contrary to the teachings not only of some distinguished surgeons but authors as well, they teaching that herniæ in children will always be cured by trusses.

We will to-day perform what is known as the Bassini operation. If we have time afterwards we will give you the steps of it. The first thing we do after everything has been thoroughly sterilized is to map out the anterior superior spinous process of the ilium and Poupart's ligament; we then make an incision half an inch above and parallel with Poupart's ligament, extending out almost to the anterior superior spinous process of the ilium. We rapidly cut through the superficial fascia, taking care however in the latter structure to secure a large vein which we have clamped upon either side, and then cut between. We are now down to the aponeurosis of the external oblique muscle. We give ourselves plenty of room by carrying the incision down to and below the external abdominal ring, and I now at once come down upon the sac. The next thing to do is to isolate the sac and cord, to separate this sac and with it the cord from the pillars of the external abdominal ring, which I have already done. Then I take the grooved director, or even without it, on my index-finger I slit up the external abdominal ring to the extent of one and a half inches to and beyond the internal abdominal ring.

Remember the canal is about one and a half inches in length. Having slit up the external abdominal ring, we will now turn our attention to the hernial sac. The sac must be separated from all surrounding structures. You will as a rule think you are down upon the sac before you are; it is recognized by its pearly-white color and the fact of its being rather dense. I lift up the sac and find, as we usually expect, that the cord is posterior to the sac, and I have no trouble in separating them. This proves to be what

we never like to see, because it is a little more tedious, as far as dissection is concerned—viz., a congenital hernia. Dissection in such a case is always more tedious. We carry the sac up as far as the internal abdominal ring, and now we have it beautifully isolated in less time than we anticipated. You can see the sac; you can see where the very thin membrane stops and where it becomes more opaque and white. Nothing could be more perfect in the way of a demonstration. We have carried the sac up to the internal abdominal ring, and now the question is, shall we or shall we not remove the sac? There surgeons differ, some saying they prefer to fold the sac up and anchor it in the inguinal canal according to the method of Macewan, leaving it there to serve as a living stopper. The vast majority of operators, however, say remove the sac, that it is a menace so long as it remains there, and will invite a further descent of the hernia. Therefore we remove the sac in all cases because we believe it is best. I believe the sac should always be taken away, and the operation of Bassini, Halstead and nearly all the more modern operators contemplates its complete removal.

Having isolated the sac well up to and beyond the internal abdominal ring, we shall pull it down; not being satisfied with this, we shall twist the sac so as to bring it still more flush with the ring; then having done that we shall amputate it. The sac should always be opened. You may ask why? To avoid the accident of cutting the bowel, or cutting something else that might be in the sac. Now you will observe the small hernial sac beautifully demonstrated; you can see clear down into the opening. I pass my finger down to the internal ring into the abdomen and feel that there are no adhesions. We know that the sac is empty. We have to be very careful in ligating the sac that the cord is not also included. Always be absolutely sure that there is nothing in the sac before amputating it. We will twist the sac, which will draw it down still further. We have placed a ligature very high up, well up beyond the internal ring, ligating with large catgut. Some operators prefer silk; however, I believe catgut is the better substance.

We have amputated the sac, and the next step of the operation is to dissect down the lower flap, going through the aponeurosis of the external oblique muscle until we reach the deep shelving of Poupart's ligament, which we now do. Next dissect up the upper flap. How far? To the conjoined tendon and the rectus muscle above. Having done that and exposed the deep shelving of Poupart's ligament below and conjoined tendon above, we now take the cord and hold it *en masse*, and lift it out of the way, so that it will not be injured in making a new canal. The cord must be held out of harm's way while we are preparing a new bed for it. We are going to transplant the cord; we are going to make a new canal for it. With a loop of gauze the cord is lifted up out of the way, as interrupted sutures of kangaroo tendon, silver wire, silkworm-gut, or other abiding substance, are put in. We will use in this case kangaroo tendon. Why? Because it is sufficiently abiding on the one hand; on the other hand, being an animal substance, it is absorbed. It takes sixty to ninety days for kangaroo tendon sutures to become absorbed. We find there is quite a mass of pre-peritoneal fat, which we will simply get rid of by removing. In taking your stitches always be careful not to con-

strict the cord, and introduce them from above downward. We can see the femoral artery pulsating, and can understand how easy it would be to enter the artery or the vein and cause serious hemorrhage. We usually put in about five sutures of kangaroo tendon between the conjoined tendon and the rectus above and Poupart's ligament below. Remember that these sutures should not be introduced in such a way as to interfere with the circulation of the cord; this is a very important step in the operation.

Now the difference between the Bassini and Halstead operations is that Halstead would excise a large number of the veins of the cord, and then he also brings the cord on top of the aponeurosis of the external oblique muscle instead of beneath it.

We have introduced four sutures and will add one more, which will be sufficient; then proceed to complete the operation in the usual way, which is by sewing the aponeurosis of the external oblique with kangaroo tendon, either using the interrupted or continued sutures. The dressing will not be removed for a week or longer.

Some diversity of opinion has existed among physiologists as to the physiological signification of eating salt. According to Bunge, the use of sodium chloride with food is to counteract the effects of the potassium salts predominating, especially in vegetable diet, while other physiologists regard salt purely in the nature of a condiment with no special action. M. Leon Fredericq, writing in the *Bulletin de l'Academie Royale de Belgique*, describes his observations on certain salts used by the natives of the Congo Free State. These salts are produced by the incineration of aquatic plants, and are placed on the market in the form of cakes produced by evaporation of the solution formed by dissolving the residue. An analysis shows them to consist almost entirely of chloride and sulphate of potassium, the former largely preponderating, and the presence of sodium being only detectable by the spectroscope. The fact that salts of potassium are thus used for cooking purposes seems to negative the views of Bunge, and to support the opinion, previously advanced by Lapicque, that the use of salt is primarily to improve the flavor of food.

At a recent meeting of the Manchester city justices, says *The Lancet*, it was stated by the chairman of the licensing committee that where extensions of premises were made the committee had for several years stipulated that the drinking accommodation should not be increased and that a "private apartment" should be provided for children sent for their parents' drink, "so that they would not see and hear what was going on in other parts of the house." As drinking habits are in many cases acquired very early in life, and as the temptation to sip a little of the beverage which their parents find so indispensable is to many of the children irresistible, perhaps the magistrates will see that some one accompanies them from the public house to their homes so as to guard them from this danger. Some of the publicans who give sweets and presents to the beer-fetching children might spend their money in this more truly benevolent fashion.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

A COMMUNICATION FROM THE PUBLISHER—THE LIBEL SUIT OF WILLIAM SMITH, OSTEOPATHIST.

To the readers of THE MEDICAL AGE.

Dr. William Smith, Osteopathist, has a grievance against THE MEDICAL AGE, and demands $25,000 damages.

The ground of his plaint is an editorial, reflecting discredit on Dr. Smith, on the *Journal of Osteopathy*, and on osteopaths in general. The subject is set forth editorially in THE MEDICAL AGE of September 26, 1898, and a reprint of this editorial will be sent on application.

I need hardly assure any one familiar with the past record of the AGE, that William Smith, M.D., D.O., has a large contract on his hands. His quest for damages is likely to prove futile, and his armor will need patching if it is to withstand the hard legal knocks that will be showered and battered upon it before he touches one dollar of the AGE's money!

Pray do not fancy, however, that William Smith and Osteopathy are to be lightly dismissed with the contempt that they merit. There is no use in blinking the fact that the lack of efficient organization amongst reputable medical men has permitted the whole brood of quacks and charlatans to flourish apace. By the strangest irony of fate, Osteopathy, in some respects the most grotesque of medical aberrations, has well illustrated Lecky's dictum that a small but cohesive and determined minority can exert a political influence wholly disproportioned to its real weight and numbers.

In Kentucky, thanks to the resolute leadership of a handful of physicians, ably guided by Dr. Mathews, the osteopaths have been driven from the State. Not so, however, in Missouri or—I blush to say it—in Michigan, Vermont, North Dakota, South Dakota, Illinois, Colorado, and North Carolina (*American Medico-Surgical Bulletin*). In these more lax and indulgent communities Osteopathy boasts its numerous followers, its "schools of instruction," its periodicals of propaganda, its political influence in legislation, its shameful immunity from the penalties by which society properly seeks to rid itself of quackish parasites.

Emboldened by its success, Osteopathy now enters the courts and offers

battle to a medical journal which disputes its respectability. The challenge is accepted. In the interest of science, in defense of ethical and honorable medicine, in defiance of a quackery that constitutes a deep disgrace to an enlightened age and a stain on the communities which give it shelter, the AGE proposes to maintain its position and to continue its denunciations of the ignorant pretenders who fatten on the sufferings of the credulous and confiding.

Having put my hand to the plow in this uncompromising fight with quackery, I beg leave to assure you that there will be no turning back.

I need not point out the bearings this contest must have on the interests of legitimate medicine, and I earnestly hope that the AGE may count on the moral support and commendation of the entire profession.

Faithfully yours,

WILLIAM M. WARREN.

BEHRING AND HIS CRITICS.

The medical press of this country has spoken as a unit in its condemnation of Professor Behring and his patent on antitoxin. In the recent history of medicine no individual action has been so roundly denounced as this one of Behring's. Not alone in this country, where the effects of an antitoxin monopoly would primarily fall and might therefore be expected to be most wrathfully repudiated, but throughout the English medical press has the same opinion been seen to prevail. Everywhere the justice of Behring's claim to be the exclusive inventor of antitoxin has been reprobated. All have expressed contempt for the sordid spirit displayed by Behring in his willingness to accept as his own all the pecuniary rewards accruing to this branch of serum therapeutics, and all express surprise that "a great man should decline" to the extent of finding a satisfactory recompense for one of the proudest achievements of the human intellect in purely commercial compensation.

This being the attitude of the American and English press, it may not be uninteresting to observe how Behring's action has been viewed by his own countrymen. These opinions have recently been commented upon by the editor of the *Philadelphia Medical Journal*, whose vigorous and facile pen seldom fails to awaken an interest in the wiser and juster issues of a controversy. In the *Berliner Tageblatt* of September 5 an article appeared under the caption "Science and Business." The writer considers the Behring patent from an ethical standpoint, and compares the action of Behring in withholding diphtheria antitoxin from those who have not "the price" with Helmholz freely giving to the profession the ophthalmoscope, and Lister bestowing upon mankind the unspeakable blessings of surgical antisepsis.

The article in the *Berliner Tageblatt* met with no reply from Behring, so the *Munchener Medicinische Wochenschrift* briefly insists upon the necessity of an explanation. This journal evidently does not fully approve of Behring's action, and urges that the patenting of antipyrin and other medicaments does not present a parallel case, as in these instances the patentee was not a physician. What has Behring, the physician, to say of his use of the patent law?

In the *Deutsche Medicinische Wochenschrift* of September 15 Professor Behring replies to his critics. He thinks Liebig and Helmholz would not have been averse to availing themselves of the patent laws had they been able to do so, but patent laws are of recent date. He does not know what Lister and Pasteur would have done under the same circumstances, and he is not disposed to consider the interests of foreigners. The Americans have raised a hypocritical cry of "stop thief," but their piracy should not be countenanced by the Germans. In regard to the matter of being a physician, he denies that he is one. He renounced the medical profession some time ago, and has since been obliged to earn his living by business methods. Pasteur in his researches received help from the French people and Government. The former collected 1,000,000 francs and the Republic gave 200,000 francs yearly to maintain the Pasteur Institute, where serum-therapy might be developed and practically applied. Germany had done nothing for him, and he would have had to sacrifice his entire possessions to continue his experimental investigations had not the Höchster Farbwerke come to his assistance. There is nothing in his patent to affect injuriously the Americans, for the Höchster Farbwerke and himself have mutually resolved to furnish more reliable preparations than those put upon the market by American firms for the same price.

The editor of the *Philadelphia Medical Journal*, commenting on these remarks, says: "The spirit of Behring's article is certainly far from admirable. His insinuations and sneers at Americans are undignified and untrue, and may help us to estimate his personal character more accurately. We have a profound sympathy for the suffering of many German scientists and their ill-requital financially either by the Government or the community. But the fundamental and damnatory fact remains that not to Behring alone is due the discovery of which he is attempting to reap the entire reward. The division of the French prize between Roux and Behring shows that. This renunciation of his profession and its ideals is also highly suspicious, and his defense makes it clear that the renunciation was for purely commercial reasons. The whole affair is soaked in the pickle of commercialism. A man who has a 'few possessions' and 'credit' is not suffering for bread. Koch was not suffering, and he also is in the employ of and in profit-partnership with the same firm that owns Behring's cast-off professional soul. There is, fortunately, little danger that the serum of American manufacturers will be run out of the market by that of the Höchster Farbwerke, either because this last is better, or because Behring's sordid patent will be sustained by our courts."

The American Microscopical Society, at its recent annual session, elected the following officers for the ensuing year: President, Dr. William C. Krauss, of Buffalo; First Vice-President, Professor A. M. Bleile, of Columbus, O.; Second Vice-President, Dr. G. C. Huber, of Ann Arbor, Mich.; Secretary, Professor Henry D. Ward, of Lincoln, Neb.; Treasurer, Magnus Pflaum, of Pittsburg; Executive Committee, Professor S. H. Gage of Ithaca, Dr. A Clifford Mercer of Syracuse, and Dr. V. A. Moore of Ithaca.

ITEMS AND NOTES.

YELLOW FEVER has appeared in many places in the South.

IN Bombay is commencing a third outbreak of the plague.

GRACE HOSPITAL, Detroit, Mich., will erect a new nurses' home.

PROFESSOR NASSE, the first assistant of Bergmann at Berlin, lost his life last month while mountain climbing.

A COMBINED circulation of over 16,000,000 is credited to the 275 medical journals published in this country.

THE *Northwestern Lancet* says the Eskimo women do not breed during the winter months and their menses cease during that time.

THE *Psychiater* is the title of a new quarterly publication published by the medical staff of the Illinois Eastern Hospital for the Insane, at Kankakee.

PROFESSOR LOMBROSO has been given an opportunity to study the defects, organic and acquired, of Lucchesi, the assassin of the late Empress of Austria.

IN Sweden and Norway a legal marriage is not allowed to be solemnized till both parties produce certificates attesting that they bear genuine vaccination marks.

THE Prussian dog-muzzling regulations are very strictly enforced in Germany, but despite this fact five deaths from rabies were reported in that country in 1897.

AT Ambuhimalaza, Madagascar, a native medical man has founded a hospital for his compatriots. It is the second hospital provided by private generosity among the Hovas.

THE city council of New Orleans, La., has decided to allow the Sisters of Charity to erect a new building for the Hotel Dieu. Considerable opposition was made by property owners adjacent to the proposed site.

THE gift of Mr. Oliver H. Payne to the Cornell Medical College is stated to be $1,500,000. The full four years' course will be given in New York, but the work of the first two years thereof will be carried on at Ithaca.

THE late Dr. Pepper left an estate estimated to be worth $1,000,000 to be divided between the widow and three sons. He directed that his body be cremated and his brain given to the American Anthropometric Society.

A BOARD of officers will be convened at Washington on Wednesday, November 9, 1898, for the purpose of examining candidates for admission to the grade of assistant surgeon in the United States Marine Hospital Service.

In Berlin there has been recently opened in the Institute for Infectious Diseases a department for the treatment of hydrophobia by Pasteur's method, and for scientific research on the subject of hydrophobia. This establishment is the first of its kind in Germany.

Surgeon-General Sternberg says that the medical service of the army was crippled by political pulls and mismanagement by inexperienced and incompetent men; that the greatest trouble rose from the neglect of sanitary regulations and reckless exposure to unnecessary risk.

The New York Hospital, established in 1771 by King George the Third, was the first institution of the kind established in the City of New York. Since the hospital opened its doors it has treated in its various branches more than 790,000 patients, of whom eighty per cent. at least have been treated gratuitously.

Dr. Von Rokitanski, of Gratz, who has just died, was the son of the celebrated Viennese, Professor Rokitanski. The latter had four sons, of whom two devoted themselves to medicine, while the other two became singers. The old man used to say, when asked about their professions, "Zwei haulen und zwei heilen" (two are howlers and two are healers).

A biographical sketch of Dr. Sternberg, surgeon-general of the army, shows that he is the author of no less than one hundred and twenty-two journal articles in English and Spanish, and twenty-nine single works. This list does not include his many letters to lay and medical journals in reply to criticisms of the army medical department, written during the past three months.

"I am glad to find you better," said John Hunter, the famous surgeon, to Foote, the equally famous actor, one morning. "You followed my prescription, of course?" "Indeed I did not, Doctor," replied Sam, "for if I had done so I would have broken my neck." "Broken your neck!" exclaimed Hunter, in surprise. "Yes," said Foote, "for I threw your prescription out of a three-story window."

In Italy a society will be formed for the study of malaria and its prophylaxis. The circular states: "Malaria keeps 5,000,000 acres of ground in Italy from cultivation; it affects, more or less, 63 provinces and 2823 communes; and every year it poisons about 2,000,000 inhabitants, killing 15,000 of them. It is impossible to estimate the economic damage done to our country by the scourge, and no sanitary problem is more intimately bound up with the question of our prosperity."

The dead of London require an annual waste of twenty-three acres of valuable ground. If 4000 corpses are crowded into the space of one acre, the limit in the case of the most populated graveyard, and if we accept the present rate of mortality, 20 per 1000 inhabitants, as the standard, New York, with a population of 3,500,000, would have to provide room for 70,000 corpses, and would require annually seventeen and one-half acres to bury them in. Unless the custom is changed the available room in the vicinity of all large cities will gradually be absorbed by remains of the dead.

KNOCK-OUT DROPS, says an exchange, is the name used to describe some secret narcotic which is put in the drink of inebriates to make them insensible, for purposes of robbery. This is found to be always chloral, in concentrated solution, sixty grains to a drachm. This can be readily disguised and put in spirits without detection, the drinker always having palsied taste. This drug cannot be detected and is more readily soluble in spirits. One hundred grains can be dissolved in a drachm. Enough of this is absorbed to produce narcosis quickly without the usual stage of extreme excitement.

IN the days of the Ptolemies, Egyptian embalming was carried to a very high state of perfection. The exact process has been lost, but it seems that they removed the brain through an opening in the nasal fossæ, and the intestines through an incision in the left side of the abdomen. Both these cavities were then stuffed with aromatic spices, the body was washed with lye, smeared with gums, and wound around with cloths of linen. The embalming of the body of Bismarck calls attention to the fact that an Italian, Epsio Marini, has even gone further than the Egyptians. His three different methods and results are described as follows: "The first is a sort of desiccation, and the application of certain fluids will restore the limbs to their condition at the moment of death. By the second the corpse is converted into solid marble, and by the third, and most remarkable, the body is preserved with all its freshness, color, and flexibility." If this is a fact, then the "lost art" is lost no longer, and the immobile Sphynx has ceased to guard the secret of a past civilization. The command that Joseph gave to his servants and physician, to embalm his body, is likewise the command of the Iron Chancellor at the dawn of the twentieth century.

AT a meeting of the Society of Biology, held on June 9, says the Paris correspondent of *The Lancet* (London) of July 23, M. D'Arsonval referred to some researches which he had made with regard to the action of liquid air upon sundry tissues and upon mucous membranes. Actual contact did not take place, and the substance could be introduced into the stomach. M. D'Arsonval had offered a guest some liquid air mixed with champagne, and he, without waiting till the champagne thawed, swallowed the whole glassful, containing about fifteen cubic centimeters (about one-tenth gill) of liquid air. After a few moments his stomach was acutely distended, but a sudden violent expulsion of food and gas relieved this condition. If liquid air be poured upon the hand, it assumes the spheroidal state and breaks up into globules which scatter in various directions. It has been proposed to use it in diving operations, for a diver carrying a liter (quart) of liquid air upon his back would have 1000 liters of air to breathe. M. D'Arsonval also placed in liquid air some dried bacilli and bouillon cultures of diphtheria and the bacillus pyocyaneus. In one case they were there for six days and nights until the air evaporated. He then sowed the cultures on agar, and found that, contrary to what he had expected, the liquid air had very little effect. Growth went on regularly; the individual bacilli were slightly damaged, and the only marked modification was that the bacillus pyocyaneus had lost its chromogenic power—a modification which, of course, is not of the least importance.

NEW PUBLICATIONS.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF GYNECOLOGY.

This latest contribution to gynecological text-book literature is an excellent exponent of the methods and practises of the modern school of gynecology, and is therefore essentially a discussion of the various operative procedures at present in vogue for the treatment of the local disorders of women. Dr. Dudley has arranged his subject-matter under five sections, each of which is thoroughly and admirably presented. Part I deals with general principles, and nine chapters are devoted to such important subjects as "The Physiological Periods in the Life of Woman," "Antiseptics, Asepsis," "After-treatment in Major Operations," and "The Relation of Dress to the Diseases of Women." Part II considers the inflammatory affections of the genital apparatus; Part III, tumors, tubal pregnancy, and malformations; Part IV deals with traumatisms; and Part V with displacements of the uterus and other pelvic organs, and massage. There are fifty chapters in all. The book is a plain, straightforward statement of facts unembellished by fine writing, and may be taken as an epitome of the distinguished author's large experience and honest opinions. The book will establish a place for itself in current literature, and must be considered as one of the best treatises on the subject which has appeared in many years. It is attractively clothed in dark green, with red and gold label.

Diseases of Women: A Treatise on the Principles and Practice of Gynecology. For Students and Practitioners. By E. C. Dudley, A.M., M.D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's Hospital, Chicago, etc., etc. With 422 illustrations and two colored plates. Pp. 637. Philadelphia and New York: Lea Brothers and Co., 1898.

AN AMERICAN TEXT-BOOK OF GYNECOLOGY.

The American Text-book would be a more appropriate title for this elegant volume, which now stands at the head of the list of works on this subject. The book is now so well and favorably known, and its many admirable features are so familiar to the profession, that anything more than a passing reference to the new edition would seem superfluous. In the present edition the various sections have been revised and brought up to date, and much additional matter has been introduced, while many of the older cuts have either been supplemented or replaced by new. The important chapter on hysterectomy, both abdominal and vaginal, has been entirely rewritten, and more freely illustrated. The work is, therefore, practically a new one, and may be relied on as embracing all of the latest and approved methods of treatment, as well as advance in pathological knowledge of genesic disorders.

As already stated, the present edition of this text-book leaves little to be desired in a work treating of diseases along this line. The publisher's part has been executed in the same admirable manner for which this house has an established reputation.

An American Text-book of Gynecology, Medical and Surgical, for Practitioners and Students. Edited by J. M. Baldy, M.D. Second Edition, revised. With 341 illustrations and 38 colored and half-tone plates. Pp. 718. Philadelphia: W. B. Saunders, 1898.

PLAYFAIR'S MIDWIFERY.

It is now twenty-two years since Playfair's first edition of his work was presented to the public. It has gone through many editions, and through the whole period has maintained its position as one of the standard text-books upon the subject. The seventh American edition is now given to the public, rewritten in many parts and thoroughly up to date in all particulars. It is doubtless one of the most readable works upon the subject now existing in the English language, and there is no likelihood that its popularity will diminish in the future. The work is handsomely bound, and will doubtless be patronized by students in their college courses very widely.

The Science and Practice of Midwifery. By W. S. Playfair, M.D., LL.D., F.R.C.P., etc. Seventh American from the Ninth English Edition, with 7 plates and 207 illustrations. Philadelphia and New York: Lea Brothers & Co., 1898.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Traumatism of the Spine Resembling Pott's Disease.

Dr. Halstead Myers, of New York (*Medical Record*, Aug. 13, 1898), at the recent meeting of the American Orthopedic Association read a paper with this title, and described a number of cases, chiefly in adults, in which traumatism was followed by the symptoms or deformity of Pott's disease, yet the subsequent history disproves this diagnosis. One case was that of a lad of eighteen years, who developed an abscess in the lumbar region, which opened and discharged bony spicula. After two months a small kyphosis was discovered, and a spinal assistant was used to support the vertebral column. After three years a large sequestrum was discharged and the abscess closed.

Dr. Myers said that when the vertebræ were fractured without injuring the cord to any extent there would not be much tenderness or local weakness, but gradually the weight of the body increased the kyphosis or lordosis, and the clinical picture came to resemble Pott's disease quite closely. It was not right, however, as was the case with the young man whose history has just been alluded to, that the life insurance companies should refuse such risks on any hard and fast rules, for there was much reason to doubt the existence of a tuberculous process. The special object of the paper was to direct attention to the fact that there were certain cases of traumatism of the spine, with a short and uneventful history, in which it seemed justifiable to exclude tuberculosis.

MEDICINE.

Spontaneous Rupture of the Heart.

Rupture of the heart is of rare occurrence, having been found but once in a series of two hundred autopsies. Those cases reported have occurred for the most part in old people from seventy to eighty years of age, and oftener in men than in women. By far the most frequent site of rupture is the left ventricle, more rarely the right, and very seldom the right or left auricle. The predisposing causes of heart rupture are fatty degeneration of the heart muscle, aneurism of the heart, syphilis, and abscess; unusually rare causes are neoplasms, hydatids, ulcerative endocarditis, hemorrhages, and certain local degenerations. Death, usually sudden without premonitory symptoms, may occasionally be preceded by general weakness, difficult respiration, sensation of distress in the chest, and then complete suffocation, without its being possible to recognize the cause. In other cases several days elapse before death, during which period there may be a marked improvement of the symptoms just mentioned. The diagnosis, necessarily very difficult, may be possible in the form that lasts for some days. The therapy, at best of little avail, consists of proper position of the patient, the application of ice-bags, and injections of morphine.—*Progrès Médical.*

A Singular Attempt at Suicide.

Dr. Dyrenfurth (*Berliner Klinische Wochenschrift*) reports an interesting case of a prisoner's attempt at suicide in a prison at Ralditsch. A man twenty-two years of age was received at the penitentiary and put to work in the tailor shop. Several weeks after his entrance the attendant reported that the prisoner was vomiting blood without any apparent cause. He was ordered to the hospital and examined. With the exception of pain over the epigastrium nothing could be found. The second day the first stools were passed in the shape of dark, hard balls. On close examination the same were found to contain thirteen pants buttons and seven needles, five of the needles being tied in the shape of a bundle. The next day the second passage contained five pants buttons, two bundles of needles, three pieces of a nail, and a bent trousers catch or hook. After several days the patient was discharged from the hospital. Undoubtedly the man took the above named articles with suicidal intention, because some weeks previous he was prevented from hanging himself.

This case is similar to the case reported by Ewald. A sailor, for a number of years, swallowed pocket-knives, etc., which were always passed per rectum. This practise at last resulted in a perforation of the rectum.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,

Microscopist to Harper Hospital, Detroit.

Malignancy.

Harrison, in the *Quarterly Medical Journal* for July, 1898, in reviewing the various theories of the cause of malignant growths, says that those to which he proposes to allude are: (1) Cohnheim's theory of embryonic residua; (2) Thiersch's theory; (3) the spermatic theory; (4) the irritation theory; (5) the parasitic theory; (6) Ribbert's theory; (7) Hansemann's theory; as well as some points concerning the physiology of malignant growth.

The Parasitic Theory.—In the first place, from *a priori* grounds, it has been argued that the parasitic theory of malignancy has much to recommend it; thus the clinical history of sarcoma resembles in many ways tuberculosis, *e.g.*, one may get a sarcoma at the end of the femur, as the result of injury, or one may get a tuberculous abscess, and in each case general metastasis may occur, producing general tuberculosis or sarcomatosis.

In a word, then, with regard to the germ theory of malignancy, at the present time the negative evidence is abundant, while the little positive evidence which exists will not bear criticism.

Cohnheim's Theory.—Professor Cohnheim, with a wealth of illustration seldom surpassed, maintains the proposition that the tumors of the body are

due to the awakened growth of embryonic rudiments that have remained over from the earliest periods of development, and have lain long latent in the midst of the mature tissues. Many of us die, he observes, with such rudiments in our bodies, which have fortunately never grown to be tumors.

The Theory of Thiersch.—In the classical work on epithelioma of the skin, by the late distinguished Professor Carl Thiersch, of Leipzig, published with an atlas in 1865, the emphasis was laid upon a fact in malignant new growths which will always arrest attention, namely, that columns or cylinders of epithelial cells, apparently continuous with a normal epitheliated surface, descend into the depths of the part and penetrate in all directions among the underlying tissues.

Hansemann's Hypothesis.—Hansemann says that each class of tissue cells of the body has its own peculiar karyokinetic figure, and that these vary largely and in many ways, *e.g.*, one kind of cell may be distinguished by the length and sharpness of its nuclear spindle, or by the number, shape and mode of distribution of the chromosomes, which may differ in a great variety of ways. But each type of cell retains its own form of mitosis—that is to say, the karyokinetic figures seen in the normal epithelium of the breast are always the same in all breasts, and are to be distinguished from the mitotic figures found, say, in the intestinal epithelium.

From the mere examination of a microscopical preparation it is impossible to say with certainty very often whether it is normal tissue, an adenoma, or a cancer that we have under observation. If, however, we find the cells containing mitotic figures abundant, and if the figures differ from those of the mother cells, and especially if asymmetrical forms are seen, then the diagnosis of malignancy will be assured.

Theory of "Spermatic" Influence of Cells.—This theory assumes that the tumor cells, whether epithelial or not, which by division have increased in number, assert an influence on the neighboring connective tissue cells, causing them to split up and form cells of a similar type to those of the tumor.

Ribbert's Theory.—He believes that cancer is caused by irritation, which causes single cells to become loosened and increases their proliferating power, while at the same time the resistance of the stroma to invasion by the growing cells is lessened.

Inheritance in Cancer.—Modern statistics furnish some remarkable cases where cancer seems to be hereditary, *e.g.*, Broca mentions a family where in one generation the mother died of cancer of the breast, and four of her daughters died of cancer; in the third generation ten children from two marriages developed cancer; and in the fourth generation there was a cancerous daughter. Here, however, the cancer was not limited to one organ, but showed itself in breast, stomach, uterus, intestine, etc.

On the whole, however, the evidence of the true hereditary nature of cancer is not really strong, and is rejected by many eminent modern pathologists.

In conclusion, the author thinks that we are not at present in a position to assign cancer to any one cause, and it is of importance not to generalize too much. Irritation certainly seems to account for the existence of certain cancers, but not by any means all.

Thiersch's theory, although thirty years old, has not yet been seriously assailed. The spermatic theory has much to recommend it, while Cohnheim's theory, though accounting for many tumors, is scarcely applicable to cancer. The parasitic theory after a brilliant exposition does not bear criticism, while Hansemann's and Ribbert's theories are as yet not sufficiently well known to have become severely criticized. For his own part the author is inclined to the belief that the cause of malignancy will only be explained when we know more concerning the cause of the development of fetal organs.

THERAPEUTICS.

The Action of Thyroid and Parathyroid Extracts upon Metabolism in the Insane.

Easterbrook, in *The Lancet* of August 27, 1898, in an interesting article on this subject, says that the patients to whom these extracts were administered were women suffering from insanity, either chronic and incurable or threatening to become so. Each patient was weighed, kept at rest in bed, and put upon a fixed mixed diet sufficient to maintain the body weight and body temperature. By rest in bed one controlled more particularly non-nitrogenous metabolism and the excretion of carbonic acid and water.

The parathyroids of the ox were selected, this being the most convenient animal from which to obtain a sufficient supply of these small bodies.

In concluding his essay, Dr. Easterbrook says that the facts show indubitably that thyroid is a profound catabolic stimulant. With the patient at rest in bed and on a fixed mixed diet there is a great increase in all the excreta, especially in the water and carbonic acid, and to a less extent in the urea and other products of nitrogenous metabolism. Thyroid thus greatly accelerates the splitting up and oxidation of the tissues. The fats of the tissues suffer most severely, and the reason is probably simply this—that the fats are the most fluctuating of the tissue substances, they are the most readily formed and the most easily lost of the body stuffs, and consequently when a powerful catabolic stimulant such as thyroid is introduced into the system the fats are the first to be burned up, and when the thyroid becomes eliminated from the system fat is rapidly laid on. Among the fats thus affected are probably the so-called "azotized fats," or phosphorized constituents of the central gray matter, and the early excess of phosphoric acid in the urine is probably derived from this source. The tissue carbohydrates are probably also considerably oxidized, and although the clinical proof of this is not so clear, the great muscular weakness and incapacity for physical exertion during thyroidism may indicate that the glycogen in the muscles, which is the chief immediate source of muscular energy, has been largely burnt up and so is not available. The tissue proteids are also excessively wasted, the "unorganized" proteid being probably affected first, and finally the living proteid or bioplasm itself. After the thyroid is eliminated from the system a gain in weight sets in and there are other evidences of a powerful anabolic reaction. The ration-

ale of this change seems to the author to be explainable by Hering's theory of the "internal self-adjustment of bioplasm," according to which the bioplasm when it is being catabolized by some stimulus (*e. g.*, thyroid) tends less and less towards catabolism and more and more towards anabolism, which sets in with a rebound as soon as the catabolic stimulus is removed.

As to the channels by which the thyroid reaches the tissues, the changes in the blood during thyroidism probably indicate that the drug is distributed by the blood to the tissues, but at the same time the early occurrence of the sensory motor and mental phenomena during thyroidism, the evidences of hyperactivity of the central gray matter followed by the signs of its exhaustion, and the early increase of the phosphoric acid in the urine, all seem to Easterbrook to indicate that the thyroid specifically stimulates the central nervous system and through it the metabolism of the tissues. In direct support of this view he mentioned that he fed two rats upon porridge and water, but to one of them was also given daily one thyroid tabloid. The thyroidized rat died with tremors and other nervous symptoms on the fourth day, and while the brain cells of the healthy rat were normal in appearance, those of the thyroidized rat showed distinct chromatolysis, many of the cells being "ghost-like."

Finally in explaining the conflicting results of the removal of the thyroid and parathyroids, the author says there seems to be a strong similarity between the "tetanic" symptoms which follow parathyroidectomy, the acute "neurotic" symptoms which follow thyroidectomy, and the toxic phenomena of thyroidism. It would seem to him that the essential result of thyroidectomy is an artificial myxedema (Horsley's "mucinoid" and "marasmic" stages), and that the acute or "neurotic" effects of throidectomy are accidental and, like the symptoms of parathyroidectomy, may be accounted for: (1) by the youth of the animal operated upon—the "acute" symptoms are always most common in young animals and are usually absent in old animals; (2) the interference with the rich nervous connections of the thyroid during the operation; (3) the wounding of the thyroid, in consequence of which colloid is spilt and thyroidism is produced by absorption of the juice. Where surgeons meet with this mishap, it is common for them to have a more than usually distinct febrile reaction and tetanic symptoms after the operation. In the removal of the internal parathyroids, which are usually incorporated in the deep surface of the thyroid, the thyroid cannot escape severe manipulation or even actual wounding.

Ipecacuanha in a Case of Epilepsy.

C. Knox Bond, in *The Lancet* of September 17, 1898, reports a case of epilepsy treated by ipecacuanha, in which a very satisfactory result was obtained. The patient was an unmarried woman, aged twenty-nine years, who had been subject to epileptic fits from the age of eight. She had been variously treated from that time until July 14, 1897, when she presented herself at the St. George's and St. James's General Dispensary. It was found that she had taken continuously for a long period large doses of bromide without, according to the statement of her mother, diminishing the number or severity of the fits. It was deemed advisable to reduce the bromide to a third of the former

dose, and wine of ipecacuanha was added to the prescription. Ten minims was first given and increased from time to time as the fits recurred, until a dose of forty minims three times a day was reached. With each increase of ipecacuanha there was a marked improvement in the patient's condition. The severity and frequency of the fits diminished under this treatment, and since May 3, 1898, no fits whatever have occurred. The patient's mother had stated that her daughter had never enjoyed so long an immunity from fits at any previous period since their commencement. The reasons which led to the adoption of this treatment were based, firstly, on observations made in private practise as to the value of ipecacuanha in convulsive attacks of children apparently due to gastro-intestinal irritation; and secondly, it seemed a likely remedy to check the voracious appetite and neglect of mastication so frequently observed in epileptics.

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT, MICH.,
Attending Neurologist to Harper Hospital.

Subarachnoid Serous Exudation Productive of Pressure Symptoms after Head Injuries.

In the September number of the *American Journal of the Medical Sciences*, Dr. Geo. L. Walton interestingly discusses those perplexing cases of injury to the head in which the serious discussion of operative procedure arises because of a localized paralysis coupled with symptoms of irritation and depression. Trephining over an indicated area is often fruitless, nothing else being found than a tensely bulging dura, from which, if incised, there escapes with a gush a quantity of clear fluid—cerebrospinal fluid—which has occupied the subarachnoid space. The accumulation of this fluid, he claims, may be very rapid, under abnormal conditions, "as a preservative effort on the part of Nature, whether to relieve vascular tension on the one hand or to fill a vacuum on the other." Congestion, edema and great pressure naturally follow, with symptoms which perplex according to site of greatest pressure. He reports three cases and reaches the following conclusions:

1. A severe blow on the head may result, either directly or by contrecoup, in a local bruising, congestion, and swelling of the brain tissue, with serous exudation into the subarachnoid space, either with or without edema of the brain substance.

2. If this accumulation of fluid occurs over the motor centers, it may be imprisoned so as to cause focal pressure symptoms, simulating meningeal hemorrhage.

3. This accumulation of fluid is not compensatory, but represents an ineffectual effort toward relief of tension, as shown by the swollen condition of underlying brain substance when exposed by operation. The mechanism is probably analogous to if not identical with the so-called serous meningitis of Quincke.

4. The lesion is self-limiting, the resulting paralysis disappearing in the course of a few days.

5. This condition may be mistaken for middle meningeal or middle cerebral hemorrhage. The diagnosis is difficult and sometimes impossible. Factors aiding in the diagnosis are: (*a*) an atypical course; (*b*) absence of steadily increasing coma; and (*c*) the appearance of sensitiveness to pain on manipulation of the head, even after the unconsciousness is so great that questions are not answered. The general symptoms (restlessness, stupor, headache, and moderate febrile movement) may be the same in both conditions.

6. The mere presence of paralysis following a blow upon the head is not necessarily an indication for immediate operation, and in the absence of steadily deepening unconsciousness and of steady progression of other cerebral symptoms it will often be wise to postpone surgical interference, though generally speaking an exploratory operation is always justified in case of focal paralysis following head injury.

7. This lesion is to be particularly borne in mind in the case of children and young adults, and perhaps in alcoholic patients. In elderly patients the same set of symptoms points more decidedly toward hemorrhage.

Treatment of Chorea.

W. F. Boggess (*Pediatrics*, September, 1898), in outlining his treatment of choreal infants, says that mild cases demand but little treatment, but severe cases may try the skill, tact and patience of the physician.

The first step of importance is absolute rest. In chorea this is essential, but often difficult to carry out. The duty of the physician is to impress this fact upon the mother in the most emphatic manner. After the first few days it is a very easy matter to keep the child in bed. Next in importance to rest is a nutritious and easily digested diet. Baths are also of importance to soothe a restless child and make the skin active.

As to medical treatment, arsenic, iron, iodide of potassium, manganese and tonics are recommended. Among them arsenic holds the lead. To get the proper effect from arsenic, it must be pushed to its full physiological limit, varying from three to twelve drops three times per day. These patients can sometimes take enormous doses of the drug. Dr. Seguin insists that eighteen to twenty-seven drops of Fowler's solution, three times a day, constitutes the proper dose, but the author's experience is that few can take such large doses. His treatment consists in giving iron, arsenic, manganese and strychnine in full doses; salicylates occasionally; and to quiet these patients he uses one-quarter grain codeia with three to five grains of antikamnia.

Music as an Aid to Suggestive Treatment.

In *Suggestive Therapeutics* for September, 1898, Dr. T. B. Keyes has this to say in part:

"In order to bring the brain under the control of the music it is essential to arrest the attention. This may be done by its power or sweetness; then to

gradually conduct the organism into harmony with itself the key should accord with that in which the cerebrum is at that moment working. As to the key, Gentry in his essays on music has laid down a series of rules on this subject which are useful as a hint to us. The key of C minor is pathetic, the key of D major is brilliant, and that of D minor is melancholy. The key of E flat is grand and also pathetic; it is a semitone higher than that of D major, and still does not in the least resemble it. By ascending again a semitone, we reach the key of E major, which is as sparkling as the preceding one is grand and melancholy. The key of E minor is rather sad, although it is the first minor scale in nature; that of F major is mixed; that of F minor is the most pathetic of all; the key of F sharp major is hard and sharp; the same key in minor still preserves a little of the same hardness; the key of G major is warlike and not as grand as C major; the key of G major is the most pathetic, save that of F minor; the key of A major is a very brilliant one; that of A minor the simplest, least brilliant of all; the key of B flat is grand, but less so than C major, and more pathetic than that of B minor, which is adapted to express sincerity and artlessness. In general all the minor keys are tinged with melancholy; they are most used for expressing sentiments such as grief, etc. A key should be chosen analogous in character to that of the person, as to temperament, age, etc. In the treatment of melancholy plaintive sound is required in a key that will blend in harmony with the brain state of the person; the attention having been arrested, the time may be gradually changed and modulated."

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Modification of Kirstein's Autoscopy.

In the current number of the *New York Medical Journal*, Dr. Ingals, of Chicago, reports a case of foreign body, a shoe eyelet hook, in the larynx of a boy three years of age. He first attempted direct inspection with the patient's head overhanging a table, retracting the tongue by means of a modified vaginal retractor. On account of the shortness of the blade he could not bring into view the lower part of the larynx. He then did a laryngo-tracheotomy, dividing the cricoid and upper two rings of the trachea, and removed the foreign body. He has since modified his retractor somewhat in accordance with the changes suggested by Kirstein in the *Berliner Klinische Wochenschrift*, and has been able to obtain in a number of cases a very satisfactory view of the larynx, though on account of the pain and annoyance attending its use he thinks it will generally be necessary to use a general or local anesthetic. Of its use in children, Dr. Ingals says: "The instrument appears to me destined to be of great value in examining the throats of young children, and it appears probable that it will often enable us to remove foreign bodies or laryngeal tumors through the natural passages, that would otherwise demand tracheotomy or thyreotomy."

THE MEDICAL AGE

VOL. XVI. DETROIT, NOVEMBER 10, 1898. NO. 21.

ORIGINAL CONTRIBUTIONS.

SOME MEDICAL OBSERVATIONS IN EUROPE.

BY J. J. MULHERON, M.D., DETROIT, MICH.

There probably lurks or has lurked in the breast of nearly every American physician a desire to round out his medical studies here with a postgraduate course at one of the European medical centers. This being conceded, the question of when and where to go presents itself, and as I have recently returned from a six-months' tour embracing these centers, my observations may not be wholly uninteresting.

First, then, at what period in the American graduate's career is he likely to find his European visit most profitable? Many, thanks to a patrimony, take it immediately after their graduation, and many, too many, are obliged, through the chronic discrepancy between receipts and disbursements, to defer it until they have entered the ranks of the silver-grays. In my humble opinion neither of these periods is adapted to the fullest benefit derivable from such a visit. This fullest benefit resides chiefly in the education of the senses in connection with diagnostic examinations. Clinical teaching to undergraduates in this country has, up to the present time, consisted in the teacher's telling his class what his senses have revealed during the course of his examination of the patient. In no country are young men better grounded than are the graduates of a number of our medical schools in the significance of physical signs and subjective symptoms. In the matter of the teaching of our young men through the education of their senses—seeing, hearing, feeling, and even smelling and tasting—how to discover such signs and symptoms, I believe I can say it advisedly, our country is sadly in the rear. The fullest benefit to be derived from a postgraduate European course lies in its supplementing theoretical instruction with that education which comes from actual bedside contact with the patient under the direction of master diagnosticians. The American Indian traces his victim over trackless expanses by means of footprints and broken twigs and distorted blades of grass, which the acutest visioned white, not specially trained in this direction, cannot detect. And no one who has visited the clinics of Europe—those of Vienna, for example—can fail to have been struck by the acute perceptive powers of the gentlemen whose lives have been devoted to the detection of the aberrations from the physiological standard.

The training of the perceptive faculties is of course best accomplished during the plastic period of youth, and if there were no other considerations one would naturally urge the young man to take the European postgraduate course as soon after his graduation here as possible. But there are other considerations. The requisites of the successful practise of medicine are not all to be acquired in the class-room. For instance, that easy deportment at the bedside, which carries the impression that you are master of the situation, the ability to maintain one's mental equilibrium in the face of unfavorable or even positively adverse influences, the power of mental abstraction or concentration in summing up the evidence which determines the diagnosis, the discovery of one's special aptitudes in certain directions—these qualifications come to the average physician during the first few, say two or three, years of practise, although in individual instances they come later, and in some they never come at all. It is well to have acquired them before taking the foreign course. The work will then be more satisfactory in that it will be more apt to be directed along the lines of best advantage. The few years of interregnum between undergraduate and systematic postgraduate work will also be an advantage. At its close the young man will start in again with renewed vigor and enthusiasm.

The danger in postponing the trip to the autumnal days of life lies chiefly in the facts that the theoretical knowledge so necessary as a basis for advanced practical work is then apt to have escaped, and that scientific enthusiasm is prone to be on the wane. These things are among the infirmities of age. Age is, however, only a relative thing. Some men are old at fifty and some are young at seventy. Physically, as has been truly said, a man is just as old as his arteries. We have no such convenient gauge of a man's mental age, but we know that mental activity may be prolonged quite indefinitely under the stimulus of the genuine scientific enthusiasm engendered in youth. Science, though a jealous mistress, is likely to remain steadfast and leal to those who court her early. Lord Lansdowne, at the age of eighty, has commenced the study of Arabic.

It will quite naturally be asked what advantage Europe presents over this country in the matter of postgraduate medical instruction. While I have some acquaintance with the advantages offered in a number of the cities of the two hemispheres, I am better prepared to speak by the card of those of New York and Vienna, having taken a postgraduate course in each. These two are fairly representative of their respective sides of the Atlantic. In the first place, the material at Vienna is much more concentrated, owing to the smaller number of hospitals. The loss of time in traveling from hospital to hospital, miles apart, is thus obviated. The Allgemeine Krankenhaus in Vienna, with its upwards of 3000 beds, affords under its roof as much material as the half-dozen largest and widely separated hospitals of New York. One may enter this immense hospital at seven in the morning and be continually occupied until seven at night—without the loss of an hour's time in going to and fro among the clinics. The advantage of this is very apparent.

The concentration of this large amount of material under the one management renders possible the selection of a practically unlimited quantity under each of the different divisions in which the student may be interested.

The control of the material at Vienna is, moreover, to a degree which public sentiment would not tolerate in this country. The patient entering the Allgemeine Krankenhaus surrenders himself absolutely to the authority of the institution. The people too are more docile than those who have tasted the sweets of our American personal and political liberty. During their life in the Allgemeine Krankenhaus they are clinical material and are so treated, devoid of all sentimentality. One is struck with the absence of the amenities which the American physician observes in his handling of even his pauper patients, whom he is expected to handle as delicately and with as much regard for their feelings as if they were of his best clientele.

After death this clinical material in the Allgemeine Krankenhaus becomes pathological material for study and investigation. Regardless of sex, social condition, or any other consideration, every patient dying in this institution is subjected to an autopsy. The decedent is sent to the dead-room with a pewter tag bearing his number tied to his toe. The diagnosis numbered to correspond with the tag accompanies him and is filed on a spindle where it is open to inspection. The autopsy is no mere examination of the seat of the disease as stated in the report of the diagnostician. It is made regardless of this report. The pathologist starts in at the head and literally dissects the subject to the very feet. He then files his report. I have seen as many as fifteen bodies thus examined in the course of a forenoon. Sections of the pathological tissue are removed for microscopical examination. This close tab kept on the diagnostician by the pathologist is intensely stimulating to the former. It is an effectual safeguard against careless or slipshod diagnosis and treatment based on subjective symptoms. It is exceedingly interesting to watch the attending physician as he notes the revelations made by the pathologist's knife in an obscure case. His reputation as well as his bread and butter are at stake, for discrepancies too frequent or too glaring between his report and the pathologist's findings have the result of bringing him on the carpet. I can imagine no situation so well calculated as this to stimulate keen scientific interest. All directly concerned are, moreover, through personal as well as scientific motives, kept constantly on edge, and the interest aroused by the operation of the system is certainly contagious and never lags.

I would make no invidious comparison between the teaching faculties of the two countries. There is this, however, to emphasize of the European teacher, and particularly as I was familiar with him in Vienna: He is, as a rule, a devotee of his calling, gauging his success not so much by emolument as by scientific results. His wants are not extravagant, and his salary, while not large, is usually sufficient to cover his desires. There is in the profession much less of the feverish lust for money that is noticeable in this country. The fact is perhaps largely due to the general hopelessness of pecuniary ambition, for the profession is miserably paid abroad.

The essential postgraduate teaching is chiefly done by the assistants to the professors. The latter are, as a rule, occupied with their private clienteles to the exclusion of other than didactic instruction and a general supervision of the clinical work. Such teaching as they do is very much of the nature of that done by clinical teachers in this country. Some have therefore visited merely

the public clinics abroad and have seen nothing in them superior to what we have at home. To secure the clinical teaching which I have referred to as the education of the senses in the detection of the pathological conditions, it is necessary to take the "Curses." I took the "Curses" in internal medicine, gynecology, and obstetrics. The "Curse" consists essentially of a limited number of students making systematic clinical examinations under the direction of the clinician in charge of the material presented. That on internal medicine was conducted by Mannaberg, first assistant to Nothnagel. The class here was restricted to ten, and these had the run of three wards containing upwards of one hundred beds. Each member of the class is assigned two patients each day. These are considered peculiarly his, and he is required to secure and record their anamneses and such points in their family history as bear on the case; this in addition to the most exhaustive physical examination by palpation, percussion, auscultation, analysis of excreta, etc., with a view to diagnosis. He is allowed unlimited time, but when his case is selected for demonstration it is very seldom that he feels that he has spent any unnecessary time in investigating. He is not confined to these two cases, but has all the patients in the ward at his disposal. He is, however, not expected to stand an examination on others than those assigned him. The examination is in connection with the cases demonstrated, and in addition to being a thorough test of the student's ability to discover the signs and symptoms, is highly instructive in the methods employed in the institution. The thoroughness of the examination and the attention to the minutest details are a revelation to one who has noted the methods of diagnosing in vogue elsewhere. Not only are the lines indicated in the anamnesis followed up, but the investigation, except in the most palpable cases, leaves no organ of the body untouched. The examination is not alone in the interest of the patient, but also in that of science, and, indeed, one is often made to feel that the interests of the latter are paramount. When the patient has been given the benefit of an exact diagnosis, interest in him seems to have declined. Therapeutics is little discussed. The scientific faith in the *vis medicatrix naturæ* has developed a condition approaching therapeutic nihilism. Therapeutics is regarded as too inexact a science (if science it can be called) to very seriously engage the attention of these scientific minds. They are sadly in the rear in the matter of the practical therapeutics which gives the American physician his great advantage in competition with the European graduate. So intent is the latter on prescribing only for pathological conditions which have been revealed to his senses, that he is prone to regard the relief of symptoms as an obstacle to correct diagnosis, and therefore unscientific and not to be countenanced. To give an antipyretic, for instance, to simply reduce the temperature, which may be an important symptom in arriving at an exact diagnosis, would not be tolerated. The cause of the increased heat must be discovered and treated. That such treatment is the more scientific cannot of course be gainsaid, but that it is the more successful in general practise is open to question. Of the fastidiousness of the patient's palate the European hospital physician takes little or no account, and fortunately for his practise his patients do not look for any of the refinements which American pharmacy has placed in the hands of the profession of this country.

My "Curses" in gynecology were taken at the clinics of Professors Chrobak and Schauta respectively, and under the tutelage of assistants Knauer and Schmidt. Of these, and especially of that of Knauer, it would be difficult to speak in terms of exaggerated praise. The work was, necessarily, principally diagnostic. Between these two clinics three hours were spent each day in making digital examinations. The variety of material selected from the clinics covered quite completely the whole list of the ailments to which woman is heir. Six students were received in each "Curse," and the number of patients allotted to each averaged fifteen per day. All the cases to be operated on the following day were, in addition, examined. Knauer commenced to operate at 8 A.M. and was busy until 10. His principal, the genial Chrobak, seldom operated in the "Curse," his work being confined almost exclusively to his public clinic. Knauer is a man of about thirty-five, and although other gynecologists abroad have been able, through combinations of circumstances, to become more noted, I hazard nothing in saying that none of them are his superiors in all the essential qualifications in this special line of surgery. Marvelously correct in his diagnosis of abdominal tumors, he is also a master of the operative technique. His immediate assistants and the members of his "Curse" are alone admitted to his operating-room. It is needless to say that the perfection of asepsis is aimed at in his operation. The absolute control of the clinic which is permitted him by Chrobak is the highest tribute which could be paid any man. He is moreover a charming gentleman, and I shall ever cherish any recollection of the few months I spent with him. Schmidt, first gynecological assistant to Schauta, is also a gynecologist of much promise. He is unfortunate in being subordinate to a man of Schauta's peculiarities. While this gentleman is unquestionably a gynecologist of the first rank, his personality is not attractive, and such is his apparent desire to be "the whole thing" that his assistants are afforded limited opportunity to develop themselves. While the atmosphere which surrounds Chrobak is sweet and redolent of *bonhomie*, that which pervades Schauta's presence is acid and dispiriting.

It was my privilege also to accept kind invitations to Wertheim's operations at the Bellina-pavilion of the Kaiserin Elizabeth-Spital. This pavilion was built by the resident member of the Rothschild family in Vienna. It contains sixty beds and cost half a million florins ($200,000). It is probably the most completely and scientifically equipped gynecological institution extant, and certainly gynecology has nowhere a more scientific exponent than Wertheim. As an operator he is what might be termed "brilliant" alike as regards technique, boldness of conception and promptness of action in the exigencies developing during an operation. The operation of shortening the round ligaments through the vagina for the retention of the uterus in normal anteversion is of his devising. It was my pleasure to witness his performance of it a number of times, as well as to see it done several times by Knauer and Schmidt at the Allgemeine Krankenhaus. It is apparently the ideal operation for retroversion and devoid of the danger necessarily attendant on laparotomy.

In the field of obstetrics Vienna stands undisputedly in the lead. There are three obstetrical clinics at the Allgemeine Krankenhaus, under the con-

trol, respectively, of Schauta, Chrobak, and Braun, the material being evenly divided among the three. The number of confinements is upwards of 11,000 annually. And not alone does this immense quantity of material give Vienna preeminence; the nature of the material is also different from that found elsewhere. The underfed condition of the poorer classes in Austria-Hungary and the bad sanitary conditions under which they are reared have developed an alarming prevalence of rachitis or "die Englische Krankheit" as it is for some unaccountable reason called. The result is that nearly twenty-five per cent. of the lying-in patients have contracted pelves. The frequency of instrumental interference can thus be conjectured. During my attendance of two months at Schauta's obstetrical clinic, under his assistant Neumann, I witnessed no less than five craniotomies. This procedure, to be followed later on by vaginal extirpation of the uterus, has taken precedence there over the Porro operation. It is held to be much more favorable in its results, which are measured by the degree of safety to the mother. The possibility of saving the child through the Porro operation is not great enough to warrant the increased jeopardy in which the mother's life is placed.

The aseptic precautions in the obstetrical clinics are quite as stringent as those at the surgical clinics. I must reserve any statement of the details, as well as the narration of my experiences at other places than Vienna, for another occasion.

A CASE OF PORRO OPERATION; RECOVERY OF MOTHER AND CHILD.

BY DAVID BARROW, M.D., LEXINGTON, KENTUCKY.

Mrs. H——, forty-four years of age, has been married twenty-three years. She has two living children, one twenty and the other fifteen years old; one miscarriage between the birth of the children. Five years ago I saw her for the first time in consultation with a medical friend, and found at that time a fibroid tumor pretty well filling the pelvic cavity. She was losing a good deal of blood, was quite anemic, and suffering from pressure symptoms. I visited her but twice, as in a short time she sought the advice of another physician. For several years she has been under the care of Dr. Bryan, in the main getting along fairly well. In July I saw her with Dr. Bryan. Previous to January, for two years, her menstruation had been regular, but that month the period did not return. Her general health had improved, the abdomen had progressively enlarged, and all symptoms suggested pregnancy. The fetal heart could not be heard, but she thought she felt the movements of the child. On manipulating the abdomen the large tumor could be plainly mapped out, and as many as four nodular masses could be distinctly felt over its surface. The smooth part of the tumor was above the umbilicus. A digital examination revealed an interesting condition. The vagina was large and soft; the cervix was high up and hard to reach with the examining finger, and was jammed tightly above the symphysis pubis. Occupying and filling the pelvic cavity was a large fibroid mass, very hard, and even by the use of firm pressure it was impossible to displace it upward. This mass extended below and had crowded the cervix out of the pelvic cavity.

We gave the opinion that the patient was pregnant, and also stated that it would be impossible to deliver her except by surgical means. We visited her from time to time, each examination confirming the opinion that she was pregnant and that an operation was absolutely necessary to save her life. She went to the infirmary on September 26, and on the 29th the operation was done. Not knowing the exact date of the last menstrual period, we fixed as best we could the date of expected confinement about the middle of October. From the appearance of the child I think we were right in estimating that the pregnancy had advanced to that period.

After the usual preparation for an abdominal operation, ether was administered and the abdomen opened. The incision was free, extending from about two and a half inches above the umbilicus to near the pubis. The tumor pretty much filled the abdominal cavity, extending to the diaphragm. Delivering it through the incision, I passed an elastic tube around the lower part of the fibroid mass to control hemorrhage. Gauze and aseptic towels were carefully packed about the tumor and into the abdominal cavity to prevent possible infection from the uterine contents. The child occupied the upper two-thirds of the tumor, and the lower one-third was a mass of fibroids. The constricting band being tightened, I freely incised the uterus. The placenta was in the line of the incision and was quickly separated, and the whole contents of the uterus delivered without rupturing the membranes, fortunately eliminating any possible infection from the amniotic fluid.

The child was handed to an assistant, who ruptured the membranes and tied the cord. In a short time it breathed, and was soon in a good condition. There was but little hemorrhage from the incision, the constricting tube making the operation almost bloodless. The uterus was carefully washed out with sterilized water, and the gauze and towels removed from the cavity and fresh ones replaced. The broad ligaments were clamped and tied with silk ligatures.

The peritoneum on the lower anterior and posterior surfaces of the tumor was deflected, the vagina opened, and the whole mass removed. A strip of gauze was passed into the vagina and the peritoneal surfaces brought together with catgut. All ligatures and raw surfaces were covered by the peritoneal flaps, and were, when the stitching was completed, extraperitoneal. After spreading out the common omentum the abdominal incision was closed, using catgut for peritoneum, silk for fascia, and worm-gut for skin.

Duration of operation, one hour. Patient left table in good condition; pulse less than 100. The child, a male, weighed six pounds at birth. It is now more than ten months since the operation, and mother and child are well.

Drs. Bryan and Witherspoon assisted me in the operation, and Dr. Patterson administered the ether.

SURGERY AT FORTRESS MONROE.

BY DONALD MACLEAN, M.D., LL.D.,
Division Surgeon U. S. V.

In response to the editor's kind invitation I herewith submit a few lines for THE MEDICAL AGE in the hope that they may prove acceptable. Elsewhere I have placed on record a few details of the methods and work of this hospital, which I am free to say have been all that the most exacting could demand. Up to the present moment no word of adverse criticism of the methods and results of our work here has appeared. On the contrary letters from all parts of the country and the press generally have pleasantly congratulated us on the fact that no cause of complaint has been found against us. The key to this happy state of affairs is plainly recognized in the masterly, kindly and genial executive conduct of the surgeon commanding, Dr. Calvin DeWitt, who has been an officer in the regular army for thirty-six years, he and I having entered the medical service about the same time and being about the same age. The difference is that he remained in the service from the date of his entry until to-day, while I availed myself of a leave of absence of thirty-four years and then rejoined the service.

Things have moved along very pleasantly and successfully here, and a more congenial staff of medical men could not be found anywhere.

It would be unfair and unreasonable to load your columns down with details of the many cases which have absorbed our interest and elicited the earnest efforts of the active and enthusiastic young doctors who constitute the medical corps on duty at this point. I will, however, quote very briefly one or two cases which may serve to illustrate the kind of work performed here. To Dr. C. H. Andersen, to whose care the cases fell, I am indebted for the following notes of rare conditions:

Case 1.—Empyema of gall-bladder. Fairchilds, artificer, Co. H, 3d Kentucky, aged forty-two. For two or three days patient complained of severe pain in right iliac region, especially over McBurney's point, and radiating upwards in the direction of the gall-bladder. Temperature ranged from 101° to 103.2°. On examination he was found to be very tender over the region of the appendix, with marked muscular tension over the right abdominal wall. A tentative diagnosis of appendicitis, in which the present writer agreed, was recorded, and an operation decided upon. After very careful preparation the patient was placed upon the operating table and chloroform administered. Under the anesthetic the appendix enlargement became markedly less distinct, so much so that the writer expressed himself as somewhat skeptical in regard to an operation. After a careful consultation it was decided that Dr. Andersen should proceed, taking care, however, to make a very free incision—a wise precaution, as it turned out.

The appendix was found somewhat enlarged and congested and was removed. The gall-bladder was found enormously enlarged and proved to be the tumor which had puzzled us before the operation. It was also adherent to the colon. Gauze was packed carefully all round the gall-bladder, and twenty-four hours afterwards, adhesions having formed, the

gall-bladder was opened by Paquelin's cautery and seven ounces of pus evacuated. The gall-bladder was carefully irrigated by salt solution and a drainage tube inserted. Strychnine $\frac{1}{30}$ grain was given every four hours. On the second day the temperature went up to 104.4°, but after a good movement of the bowels went down, and on the sixth day was normal. A small amount of bile is flowing through the opening, which is growing gradually smaller, with every indication of closing completely within a few days. Patient feels well in every respect.

Case 2.—Pistol wound, the bullet lodging in the urinary bladder. This case seems to possess some features of interest. Private G——, Battery C, Pennsylvania, U. S. V., was knocked down by a policeman in a barroom row at Newport News on July 21. While lying prostrate the policeman shot him with his revolver, the bullet entering the right buttock and failing to reappear. Next day patient passed blood in his urine and marked signs of peritonitis were present. On careful examination under chloroform the bullet was detected in the cavity of the bladder.

On July 23 the patient, having been carefully prepared for operation, was again placed on the operating table and chloroform administered. His temperature was then 104°, pulse 120 and weak. The distention of the abdominal cavity was very great. Personally I was in favor of a median perineal incision. Dr. Andersen, however, fearing that the bullet might be adherent to the wall of the bladder, or that it might have passed only partly through the wall of the viscus, which would have made its removal both difficult and dangerous, preferred to trust to the suprapubic method. The operation was performed by Dr. Andersen, and nothing could have been more satisfactory than the progress of the case afterwards. On the twenty-seventh day the opening into the bladder was found to be completely healed. Patient now is in perfect health.

A CASE OF OTITIC BRAIN ABSCESS (FROM CHRONIC OTORRHEA); OPTIC NEURITIS; OPENING OF THE MASTOID AND SKULL; RECOVERY.

BY FRANK S. MILBURY, M.D., BROOKLYN, N. Y.

On May 25, 1897, Mrs. G—— brought her sister, Mrs. J——, aged thirty-three, to my office, bearing a letter from Dr. James J. Bowen requesting me to look over the case and render my opinion; at the same time stating that he believed a mastoid operation was indicated. As I could get no intelligent answers on questioning the patient, I interrogated the sister, who stated that there had been more or less continuous discharge from the left ear since infancy, following scarlet fever. At this time it was extremely offensive. By the touch of a sound, dead bone was easily perceived in tympanum and posterior wall of meatus, which was swollen and bulged forward. Mastoid edematous, and very red. The entire side of the head was acutely sensitive to the most gentle pressure. Violent uncontrollable headaches had continued several weeks. Slight paralysis of left side of face and right arm and leg existed. Her past life seemed wrapped in complete oblivion, and it was almost impossible for her to put what thoughts she had into words—showing

amnesic aphasia. Temperature 100°; pulse 115. There was excessive vomiting on the least move of the head, and nearly as much so when lying down and the head perfectly quiet. The ophthalmoscope showed optic neuritis in the left eye, and more than that, the condition of the patient precluded any further examination of the eyes by the perimeter or otherwise. In all probability there may have been present hemianopsia. It was evident that mastoid necrosis and suppuration existed, with possible cerebral abscess and meningitis, and the sooner an operation was performed the better. Accordingly she was placed in the Bedford Dispensary and Hospital.

The next day, May 26, at 11 A.M., with the assistance of Drs. Bowen and Rickard, she was anesthetized, head shaved, and under the most careful antiseptic precautions we incised the soft tissues, detached the lining membrane of the meatus, laying the ear forward, and retracted the posterior integument, giving a clear view of an extended field. The cortex in places was soft, but no fistulæ or pus was visible on the surface of the bone. By cautious chiseling the antrum was entered. With a probe I explored, and found in every direction carious bone, which was easily removed with a sharp spoon, and nearly the entire mastoid was found to be involved. The antrum and large cell at tip of mastoid and smaller cells were filled with the foulest pus imaginable. The lateral sinus came into view, but looked blue, healthy, and pulsating. A large sequestrum was removed from the posterior wall of the meatus, making a broad connection between the tympanic cavity and antrum; also the posterior superior wall, which was soft, was removed, and the moment the brain cavity was entered pus welled out in large quantities. I enlarged the wound in skull with a rongeur, and with a sound measured the depth and extent of the pus cavity. Greatly to my astonishment the instrument passed in about four and one-half inches, and I should think the sinus had a diameter of fully an inch, and involved a portion of the temporo-sphenoidal lobe. Dr. Arthur C. Brush, a well known neurologist of Brooklyn, who was called in consultation, is of the opinion that the abscess was, in this case, formed by local purulent meningitis, the walls being formed by adhesion between the dura and the arachnoid. In other words, it was an intradural abscess. He does not think it involved the brain tissue proper to any extent on account of the rapid and complete disappearance of the symptoms after the pressure was relieved by the evacuation of the pus, which would preclude any destruction of brain tissue.

The position of the lateral sinus would indicate that it was situated above the tentorium, and the direction taken by the probe that it extended inward, forward, and downward—that is, along the superior border of the petrous portion of the temporal bone to, or even beyond, the median line. An abscess in this situation on the left side would, by pressure on the speech centers, give rise to aphasia with or without paralysis of the muscles concerned in the movements of the face and speech, on account of their dual representation, and the fact that the more highly organized centers are the ones which are the first and most seriously affected. The right hemiplegia is easily explained by pressure on the adjacent capsule. The left facial paralysis is due to the local involvement of the facial nerve in its passage through the floor of the tympanic cavity.

Two hours had elapsed in the tedious work and was well borne by the patient, but when we began there was little idea that she would survive the operation. The wound was flushed with a 1 to 6000 corrosive sublimate solution, dusted with iodoform, and dressed with sublimate gauze, a drainage tube being put into place, and the whole covered with cotton and a roller bandage. She was put in bed at 1.30 P.M.; temperature 101°; pulse 125; extremities cold. Hot-water bottles were placed at the feet, and every two hours she was given an injection of strychnine and whiskey. The after-treatment was long and tiresome. Temperature at 6 P.M., 100°; pulse 120, and at 8 P.M. 110; extremities warm; reaction from ether good; vomited considerable; slept from 12.30 A.M. to 5 A.M. Frequent vomiting continued for six days, or until June 2, and for twelve days thereafter the temperature varied from 99½° to 101°; pulse from 80 to 120, sometimes weak and intermittent, and at other times full and strong. Could retain no food in her stomach, but was nourished by enemata. At first dressing quite a quantity of pus came from the wound, but there was no odor. During the first seven days she remained in a state of almost constant lethargy, uttering no sound and apparently recognizing nothing. On the eighth day, when Dr. Bowen called her by name, asking her if she knew him, the response was by quite a firm pressure of the hand. On the ninth day (June 4), and for several days thereafter, when asked a question, the answer would be "No" or "Yes, dear," placing her hand upon her head, and at the same time giving utterance to the word "pain," but not conscious of what she was doing. On June 7, when asked how old she was, she would shake her head, indicating she did not know, but when told said, "That's right."

The wound healed kindly and improvement in her general symptoms continued gradually, but slowly, to a complete recovery of the mind and from the paralysis of face, arm, and leg. The hearing in that ear, as will be surmised, is *nil;* vision normal; at rare intervals she will say funny things, as if she did not realize what she was saying.

I have been unable to discover a parallel case in literature and doubt if there is one. It was seen by a large number of well known physicians, but none could understand the existing condition, and the greatest mystery of all is the recovery. Another peculiar feature is the fact of her being about four months pregnant, and through it all did not abort. The mental condition was probably due to the abscess and pressure on the brain, which occasionally occurs in such cases.

An archeological discovery that will interest the entire medical world has lately been made at the Isle of Paros, in Greece. A celebrated temple dedicated to Æsculapius, described by several ancient writers, has been uncovered. Paros was one of the most celebrated places of antiquity resorted to by ancient pilgrims. This Temple of Æsculapius is almost in a complete condition. Unfortunately, this magnificent temple has been so often pillaged that most of its statues and bas-reliefs, as well as its gold and ivory, have been taken away. From a purely archeological point of view this new discovery of the Temple of Æsculapius has an importance of the first order, as many stones and columns of marble are covered by inscriptions of great historical value to medicine.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE PHYSICS OF SMELL.

Had the sense of smell occupied in man the important position it bears in the hierarchy of senses of animals, it would no doubt have been the subject of a far greater amount of investigation. Sight and hearing have been subject to a long series of ingenious investigations, which have been the means of revealing their essential nature, but taste and smell have been comparatively neglected.

For this reason the address of Professor Ayrton on the physics of smell, before the British Association for the Advancement of Science, at Bristol, becomes especially interesting.

The sense of smell in man is developed so rudimentarily that it affords little opportunity for study. Our memory for odor is very imperfect, and our olfactory sensation possesses none of the definiteness and precision of other senses. It resembles so much that of taste that these two seem to have been deemed a common sensation.

In animals, of course, all this is very different, and they have gained, or we have lost, in definiteness of perception, so that any study of smell must be made elsewhere than in the human family.

Sexual odors are matters that should possess more than passing interest for the psychologist. Scarpa long ago showed that if he plunged his hand into water after handling a female toad, the males were attracted to it. Hounds will recognize by smell the trace of animals perfectly imperceptible to sight. Water, which has no smell to man, can be perceived by many animals at a great distance.

The diffusion of odors, especially those having a sexual bearing, would seem to be prodigious. Professor Ayrton found that if females of certain moths be exposed in a muslin bag, the males will soon be seen to congregate around them.

Professor Ayrton specially directed his attention to the smell of metals, the rapidity with which odors diffuse, and the capability of odors to traverse films of glass. In some important respects his inquiries may be said to have augmented our knowledge of the action of the special senses.

EDITORIAL NOTES.

The Brain Power of Plants.

In the *Gentleman's Magazine* for August Mr. Arthur Smith contributes a suggestive paper on the brain power of plants. He argues that plants show certain physical qualities which indicate the existence of brain power. One of these points is that plants sleep and need sleep. If they do not get it, they suffer from insomnia. Electric lights have recently been used to stimulate the growth of plants. When treated in this way they are prevented from sleeping, and the result in the case of perennials has been to weaken their constitution, and in the following year their growth was scanty and in some cases they were scarcely alive. Carnivorous plants possess the faculty of digesting. This, the author thinks, can only be carried on by brain force, acting by means of the nerve upon the gastric organ of plants. Plants low in the scale of organization are subject to the influence of anesthetics. The movements of desmids and diatoms can be arrested by the application of chloroform or a weak solution of opium. The writer thinks that nothing but brain power guides the shoot of germinating seed upward and the root downward. He sums up his conclusions as follows:

"It is unnecessary to adduce further illustrations in proof of the fact that brain power can and does exist apart from a visible brain. When we see the irritability of the sensitive plant, transmitted from one part to another, exhausted by repeated artificial excitants, and renewed after a period of repose, it is difficult to dissociate it from animality. Still less can we witness certain organs taking determinate positions and directions, surmounting intervening obstacles, moving spontaneously, or study the manner in which they are affected by stimulants, narcotics, and poisons, and yet declare these phenomena to be caused by a different power which produces similar actions and effects in animals."

Killed by the Yellow Journal.

One of the saddest pictures of the late war was the death of Dr. Geo. W. Lindheim, of the Eighth New York Volunteers, which occurred in New York on September 16. This young officer, only twenty-eight years of age, was detailed to escort 260 soldiers, ill with fever, from Chickamauga to New York. At Cleveland his train was boarded by a citizens' committee, who demanded that certain of the sick soldiers be allowed to remain there. To their demands Dr. Lindheim replied that his orders were to carry the men to New York, and this he was determined to do. At Cleveland certain ladies persisted in giving the soldiers sandwiches and other equally indigestible articles of food entirely unsuited for the diet of men suffering from typhoid. For doing his duty as he saw it he was reviled by the press as a brute and called other names equally harsh. On reaching his destination he himself was taken down with the fever, and in his delirium persisted in maintaining that his course was right and that he was doing his duty. No better vindication has the volunteer medical service had of its devotion to duty than in the death of this young officer.

ITEMS AND NOTES.

Diphtheria prevails to a great extent in Elizabeth, N. J.

A death from sunstroke occurred in Akron, Ohio, during the first week in October.

According to the Ontario Asylums' Inspector, insanity is greatly on the increase in that province.

There is a prospect of a bacteriological laboratory being established for London, on a scale worthy of the metropolis.

The Department of Agriculture estimates the annual loss in 354 cities from the waste of sweepings in street cleaning at $3,000,000.

An East Indian surgeon caused fatal poisoning by writing "Extr. Nucis Vom." instead of "Tinct. Nucis Vom.," as he intended.

Havana, according to reports, is in a filthier condition than ever, and pernicious malaria, dysentery and typhoid fever are raging.

The Minnesota State Board of Health has knowledge of fifty-one lepers having resided in that State, thirteen of whom are now living.

The large number of physicians who applied for positions as surgeons in the army is another proof of the crowded condition of the profession and of the difficulties of competition.

Professor Ogston, senior surgeon to the Aberdeen Royal Infirmary, has resigned after thirty years' connection with this institution, on account of the pressure of professional and other duties.

The late Mrs. Ayer, of Lowell, Mass., left $50,000 for a laboratory to be called the Ayer Laboratory, which is to be given to the Pennsylvania Hospital. The building is in course of construction.

A strong movement has been set on foot in France for the total suppression by law of patent medicines, the cause being the irritation produced among pharmacists by the universality of price cutting.

A hospital car to cost $10,000 is being built for the Missouri, Kansas & Texas Railroad. It will be provided with a drug store and an operating room, and will make regular trips over the system.

The late Sir Benjamin Ward Richardson left a considerable number of unpublished memoirs of leading physicians. These have been collected into two volumes, and will, it is announced, shortly be published under the title of "Disciples of Æsculapius." The work contains a large number of portraits and illustrations.

Some years ago Dr. Charles Harrington, of the Harvard school, analyzed all the so-called diabetic foods to be purchased. They were advertised to be practically free from starch. The examination showed that they contained from twenty-one up to seventy-one per cent. of starch, and that it would be far safer to use ordinary bread.

According to statistics the use of morphine in Prussia is greatly on the increase and affords a serious warning to the profession. Of sixty-two patients who were admitted to the Prussian Institute in 1895 for treatment, almost a third were recruited from the medical profession. Of the eighteen married female patients, three were the wives of physicians.

A physician in Peoria recently brought suit to recover fees before the magistrate's court. A jury was summoned, and after hearing the testimony not only disallowed the account, but upon the mother's plea that her daughter was not benefited actually assessed against the attending physician the sum of $30, to reimburse the mother for services as nurse in the case.

At the recent meeting of the Congress of German Naturalists and Physicians, Professor Kruse (Bonn) gave an interesting lecture on degeneration and fitness for military service. From an examination of the recruiting lists of France, Switzerland, Austria, and Germany, he had come to the conclusion that physical degeneration could not be proved, but that, on the contrary, there seemed to be a tendency for the better.

In his report of the Omdurman expedition, Lord Kitchener commends the medical, commissary and transport departments. He speaks of the "excellent rations which were always provided and kept the men strong, healthy, and fit to endure all the hardships of an arduous campaign, enabling them at a critical moment to support exceptional fatigue, continuous marching, and fighting for fourteen hours during the height of a Soudan summer."

American Academy of Railway Surgeons.—The following officers were elected for the ensuing year: President, Dr. W. W. Grant, Denver; First Vice-President, Dr. J. F. Pritchard, Manitowoc, Wis.; Second Vice-President, Dr. J. P. Lord, Omaha, Neb.; Secretary, Dr. T. B. Lacey, Council Bluffs, Iowa; Treasurer, Dr. C. B. Kibler, Corry, Pa.; Editor, Dr. Fred J. Hodges, Ashland, Wis. The next meeting will be held at Omaha, Neb., in October, 1899. The committee of arrangements is J. P. Lord (chairman), T. B. Lacey, and Fred J. Hodges.

Sud-Ende, near Berlin, was recently the scene of a well organized and thoroughly successful practical exercise on the part of members of the Red Cross Society—ambulance columns from Munchen, Hamburg and Berlin under the guidance of army surgeons. An imaginary battle was supposed to have left a large number of wounded (personated by soldiers). These were searched for, bandaged, carried away, and eventually transported by rail. All passed off well without a single accident, and the experiment was considered successful as a piece of practise.

London at one time contained many mineral wells and spas, but all have been drained away into the sewers and have disappeared, with the exception of the Streatham Spa, which still exists on a dairy farm in a village to the east of Streatham High Road. This little known spa has been in existence for over two hundred years, and in the eighteenth century was a fashionable resort. For many years afterward the water was supplied to the London hospitals. A trade is still done in the water, which, as the chemical analysis shows, contains valuable medicinal qualities, but no effort is made to make the spa well known.

During the last military maneuvers of the French troops, it was observed that some of the soldiers became completely blind during the night. Sight returned with the rising sun, and disappeared again at dusk. This intermittent hemeralopia continued during several days and then finally ceased. The affection is attributed to sunstroke, either direct or indirect, from a glaring sun, to marching over light ground, or to the glare transmitted from lime-washed buildings. The patients were cured by putting them in the middle of the day in a dark place, and making them promise not to look about and try to see objects. In two or three hours they recovered their sight.

In 1897 Paris was very hot in the summer, and the dogs in the public streets were carefully watched by the police, the number of dogs sent to fur dealers being largely increased over the average. In 1897 over 1400 persons were bitten by dogs, cats, and horses. Many of these animals, it is true, were not mad, but 350 of the victims sought the care of the Pasteur Institute, six of whom died. These figures vastly exceed any average of deaths from hydrophobia before the introduction of sero-therapy and the celebrated inoculations. Out of 1400 persons bitten, 1150 who did not worry over the bites and would not be inoculated with serum lived on without needing any medication.

A case of excessive venery in a boy of thirteen years is reported to the *Louisville Medical Monthly* by Dr. Leon Solomon, Assistant in Pediatrics in the Kentucky School of Medicine. The boy said that for more than a year he had been regularly indulging in sexual exercise, first with one, and later with four young girls, ranging in years from twelve to sixteen. They would come to him singly, and in pairs, and beg for gratification, to which demand he acceded, when he was able, and as often as he was able. How one of his tender years could accomplish so severe a task is the wonder, yet it seems, according to the Doctor's account, he was ordinarily equal to the demands of the occasion.

According to the *Medical Record* the total number of idiotic and feeble-minded persons in the United States on June 1, 1890, was 95,609. Of these 52,962 were males and 42,647 females; 84,984 were whites; 42,277 males and 33,620 females were born in the country; foreign whites, 4875 males and 4212 females; negroes, 5788 males and 4799 females; the remainder, Chinese, Japanese, and Indians, 22 males and 16 females. In the census of 1880 there were 76,000 feeble-minded persons in the United States, showing an average increase of 2000 a year. In 1870 the number of idiots was 24,395; of these 22,766 were born in the United States. Dr. Fernald estimates that, taking the

country as a whole, there is one feeble-minded person for every 500 persons in the United States, while Dr. Ireland is of opinion that as a rough estimate this proportion holds good in those countries which have a census.

In speaking of the plague, *The Lancet* says: "In Calcutta among male Hindoos the proportion of reported deaths to reported cases has been 86.2 per cent.; among female Hindoos, 72; among Hindoos of both sexes, 84; among male Mohammedans, 85; among female Mohammedans, 88; among Mohammedans of both sexes, 86; among male Eurasians, 54; among female Eurasians, 73; among Eurasians of both sexes, 63; among males of all classes, 83; among females of all classes, 76; and among persons of all classes and both sexes, 82 per cent. The figures upon which these percentages are based are in many instances, particularly in the female group, too small to permit of any sweeping conclusions as to racial susceptibility to the plague poison, but attention may be called to the remarkably low mortality among Eurasians."

De Vlaccos (*Ann. de Gynec. et d'Obstet.*) gives a full report of a distinct instance of precocious puberty, with a photogravure of the patient. She was born in August, 1892, and has all the appearance of a child of ten years, excepting that as far as the genital and mammary regions are concerned she is yet more developed. In height she measures 3 feet 8 inches; her weight is 3 stones 8 pounds. The hair of her head is very abundant, whilst her intellectual development is not above her years. When six months old a bloody discharge was noticed, and it returned in about six weeks. The interval steadily became shorter, and now the catamenia are monthly, lasting for about four days, the child becoming depressed in spirits at each period. The mammæ resemble those of a girl of seventeen years, and not only has hair grown on the pudenda, but much subcutaneous fat has developed in the region of the thighs and nates, as normally occurs at puberty.

According to the *Medical Record* the priestly quacks at Woerishofen, who have succeeded to the water-cure business of the late Father Kneipp, have recently suffered a rebuke from the Bishop of Augsburg, in whose diocese they are. "Certain regrettable statements," the Bishop writes, "which have recently been put forth by men not justified through sufficient learning to enunciate them, but moved thereto by hope of gain, constrain us to warn in the strongest terms our beloved sons of the clergy and laity in the diocese of Augsburg to observe in all particulars the decrees of the Roman Church promulgated against the illegal practise of medicine by those whose lives are consecrated to the service of God in His sanctuary." The clergy are also exhorted so to comport themselves as not in any way to interfere with the practise of individual physicians, and also to keep on terms of friendship and mutual cooperation with all the lawful members of the medical profession in their parishes.

A match which contains no trace of yellow phosphorus and in no way affects the health of the workers, yet is capable of being ignited by friction on any ordinary surface, has been invented. The *Daily Chronicle*, London, of a recent date, was the first to report the good news of this important discovery. The inventors are two Germans, Mr. S. A. Kohlmann-Rosenthal and Dr.

S. J. von Romoch. These chemists and experts have been strenuously working for the past three years, partly in Berlin, but more continuously in London. The Doctor, indeed, has almost lived in his laboratory, and every known explosive has been tested in search for the right thing. Success has been achieved in England, and the match is being brought out there. The assayers of the Bank of England and the mint have given a certificate, testifying that the matches will ignite freely by friction and contain no trace of yellow phosphorus. The invention, which promises to abolish the deadly necrosis so prevalent in match factories, is said to be likely to bring economical advantages.

In order to enable doctors who are about to enter the Spanish army to complete their studies with a view to their future duties a Military Academy of Health is to be opened in Madrid. The head of the establishment will be the Subinspector of the First Class, who directs the Institute of Military Hygiene. The instruction will be given by six surgeon-majors or first surgeons with the title of professor, and two second surgeons as assistant professors; subinspectors of the first class rank as colonels, those of the second class as lieutenant-colonels. The doctors or licentiates who take the best places in the yearly examinations are to have the preference for admission into the academy, and the students to be admitted are to receive pay at the rate of 1500 pesetas a year. The course commenced October 1 and lasts one year, embracing, among other subjects, the special pathology of hot climates, the organization of the Spanish and foreign armies in matters of health, regulations and services, sanitary material, and ambulance tactics.

According to the *Scientific American* of September 24, 1898, the use of soaps containing a disinfectant of some kind has become so general that observations on the practical value of such combinations cannot fail to be of interest. Dr. Reithoffer has recently published the results of some experiments carried out by him with various kinds of soap, having for object to determine their value as microbicides. He used the ordinary mottled soap, white almond soap perfumed with nitrobenzine, and hard potash soap. He found that these soaps were very inimical to the cholera microbe, a one-per-cent. solution killing them in a short space of time, while a five-per-cent. solution of the potash soap killed them in five minutes. We are, therefore, at liberty to infer that, as in washing the hands the strength of the soap solution is never less than five and may go as high as forty-five per cent., this method of disinfecting the hands, as well as the clothes, etc., is fairly trustworthy. Much stronger solutions are required, however, to destroy the bacilli of typhoid, the coli bacillus, etc., not less than ten per cent. being sufficient. None of the soaps experimented with appeared to have any effect on the pyogenic microbe. The practical result of these investigations is that it is always preferable to use soap and water first of all, rinsing the hands in the disinfectant solution afterward. This is an important point and should be generally made known.

NEW PUBLICATIONS.

HYDROTHERAPY.

The author of this work has long been known for his earnest and successful advocacy of the use of water in the treatment of disease and for the preservation of health. That hydrotherapy is an effective agent in nearly all diseases is a fact which is coming to be generally recognized. The work here presented will enable the reader to master thoroughly the details of hydriatic measures. The range and scope of this branch of therapeutics cannot be estimated without a somewhat deliberate investigation. Modern ingenuity has devised so many contrivances whereby all parts of the body can be irrigated and abluted, that in hydriatic procedures the practitioner possesses a remedy of potency and flexibility. By acquiring a systematic knowledge of the use of packs, compresses and affusions the skilful therapeutist will add largely to his resources, and there is at present no better manual from which this information can be extracted than this one by Dr. Baruch.

The Principles and Practice of Hydrotherapy. A Guide to the Application of Water in Disease for Students and Practitioners of Medicine. By Simon Baruch, M.D. With Numerous Illustrations. New York: William Wood & Company, 1898.

AN AMERICAN TEXT-BOOK OF THE DISEASES OF CHILDREN.

The field of pediatrics is very completely covered in this excellent text-book. While the work is encyclopedic in character, the subject-matter has been sufficiently condensed to be embraced within the covers of one volume. Each article has been written by some member of a large staff of collaborators specially fitted to discuss the subject to which he is assigned. The work possesses for this reason a variety and freshness which might be lacking were it the outcome of one man's thought and one man's pen. In a work which is characterized by such a high degree of general excellence it would be invidious to single out any particular section for special praise. It may certainly be predicted that this text-book will meet with a high degree of popularity among students and practitioners. It is preeminently the handbook of the day on the subject with which it deals. The work is very handsomely bound and amply and carefully illustrated.

An American Text-book of the Diseases of Children, Including Special Chapters on Essential Surgical Subjects, etc., by American Teachers. Edited by Louis Starr, M.D., Consulting Pediatrist to the Maternity Hospital, Philadelphia, etc.; Assisted by Thompson S. Westcott, M.D., Instructor in Diseases of Children, University of Pennsylvania, etc. Second Edition, Revised. Philadelphia: W. B. Saunders, 1898.

THE NEW TWENTIETH CENTURY PRACTICE OF MEDICINE.

The last volume of the Twentieth Century Practice of Medicine continues the subject of the infectious diseases. The present volume contains articles on influenza, typhus fever, plague, glanders, anthrax, foot and mouth diseases, actinomycosis, rabies, pyemia, and septicemia. Finkler's article on influenza is an extremely valuable contribution to the literature of that subject. Dr. McFadden Gaston's article on pyemia and septicemia will also be found exceedingly readable. The present volume fully maintains the high reputation of its predecessors.

Twentieth Century Practice of Medicine. An International Encyclopedia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by Thomas L. Stedman, M.D., New York City. In Twenty Volumes. Volume XV: Infectious Diseases. New York: William Wood & Company, 1898.

GREEN'S PATHOLOGY.

The eighth American edition of Green's Pathology shows that it has been enlarged in many of its sections, and a number of illustrations have been added. It can easily be realized why this text-book should enjoy such a singular popularity. It is written in such a fascinating style that its

perusal is less a labor than a pleasure. For clearness and lucidity of style and for the logical and harmonious arrangement of its subject-matter, this work remains a model of what such text-books should be. This manual of pathology will doubtless undergo many further editions before its usefulness has been exhausted or its information become obsolete.

An Introduction to Pathology and Morbid Anatomy. By T. Henry Green, M.D., F.R.C.P. Revised and Enlarged by H. Montague Murray, M.D., F.R.C.P. New (Eighth) American Edition, Thoroughly Revised from the Eighth English Edition, by Walton Martin, Ph.B., M.D. Illustrated with Two Hundred and Sixteen Engravings, of which Six are in Colors, and a Colored Plate. Philadelphia and New York: Lea Brothers & Co., 1898.

CLINICAL TREATMENT OF CHILDREN.

Dr. Thomson's work on diseases of children is the outcome of lectures which he delivered to classes of students and graduates who were attending the clinical teaching of the Children's Hospital in London. The subject has therefore been approached from a purely clinical standpoint. It is written in a charming and delightful spirit, and it is long since we have experienced such real pleasure from the perusal of any volume as from this one. Nearly the whole field of children's diseases is traversed, and the arrangement of the subject-matter is concise, clear, and intelligible. The work will undoubtedly become a very popular one with American readers.

A Guide to the Clinical Examination and Treatment of Sick Children. By John Thomson, M.D., Extra Physician to the Royal Hospital for Sick Children, London; Lecturer on Diseases of Children, Edinburgh School of Medicine. In one crown octavo volume of 350 pages, with 52 illustrations. Cloth, $1.75 net. Philadelphia and New York: Lea Brothers & Co.

SIMON'S CHEMISTRY.

This excellent manual of Chemistry has already taken such a strong hold on those pursuing chemical studies that it is unnecessary to give any extended exemplification of its merits. It is specially intended for the benefit of pharmaceutical and medical students. Much new matter has been added to the chapters on physiological chemistry of particular interest to the medical student. As an aid to laboratory work the book will be found to be a most efficient manual. It is now in its sixth edition.

A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-book Specially Adapted for Students of Medicine, Pharmacy, and Dentistry. By W. Simon, Ph.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons of Baltimore, in the Maryland College of Pharmacy, and in the Baltimore College of Dental Surgery. Sixth Edition, thoroughly revised. With forty-six illustrations and eight colored plates, representing sixty-four chemical reactions. Philadelphia and New York: Lea Brothers & Co., 1898.

THE CLINICAL EXAMINATION OF THE BLOOD.

The important study of hematology has been enriched by a new edition of Professor Cabot's Guide to the Clinical Examination of the Blood. The methods pursued in the work are strictly clinical and of actual practical value. The directions for the technical examination of the blood are given with such detail that any physician may learn to make reliable blood examinations for himself. The work contains a description of the newly discovered constituent of normal and abnormal blood, known as Muller's blood-dust. The colored illustrations are particularly fine.

A Guide to the Clinical Examination of the Blood for Diagnostic Purposes. By Richard C. Cabot, M.D. With colored plates and engravings. Third Revised Edition. New York: William Wood & Company, 1898.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Treatment of Fractures of the Patella by Purse-string Suture.

Dr. Irving S. Haynes, in the *New York Medical Journal* of September 3, 1898, in a carefully prepared article on this subject, says that the treatment of fractures of the patella depends upon the kind of the fracture present, the nature of the complications, if any, and whether one is satisfied with ligamentous or strives for bony union. The principles of the treatment are then derived as logical deductions from the pathology of the fracture. Fractures by direct violence may or may not be compound. The patella may be broken in any direction, and there may be several lines of fracture and fragments. The external symptoms and individual circumstances which influence us in determining the kind of treatment are mainly these: all fractures produced by direct violence, not compound, do not require operation, because there is not the separation of the fragments nor the interposition of soft tissue between them, neither is there the quantity of effusion present, nor the difficulty of bringing the fragments together and maintaining them in apposition from the very first. Treatment of fractures of the patella, therefore, is naturally divided into the operative and non-operative. By the non-operative treatment is meant any plan for bringing together the fragments not attended with puncture or incision into the skin. This treatment before the advent of Listerism was the only one seriously considered.

After thoroughly reviewing the principles underlying the treatment of fractures of the patella by operation the author comes to the method known as the purse-string suture, of which he says: "The superficial tissues are cut through, the fragments and the quadriceps extensor tendon and the ligamentum patellæ exposed, and dissected up at the sides to lay bare the entire extent of the tear in the lateral fibrous tissues. All blood-clots are carefully and thoroughly removed by irrigation, all frayed edges and damaged tissue trimmed away, especially along the torn edges of the capsule."

Attention is now directed to the patella. The fibro-periosteal cap covering the upper fragment is cut away. The surfaces of the fracture are lightly but thoroughly curetted until they bleed freely. Oozing is checked by hot irrigation and pressure. The rents in the fibrous tissues at the side of the patella are sutured with catgut or silk. The purse-string suture is now inserted. The suture is of strong braided silk, usually No. 10, capable of standing a heavy strain, so as not to break in tying. This silk has been freshly sterilized preceding the operation. Two pieces of silk are used, each about eighteen inches long, threaded into long, half-curved surgical needles. The surgical needle is used in preference to the Hagedorn, as it passes through the dense fibrous tissues with greater ease. Before using the sutures the operator should wash his hands and irrigate the joint. The upper fragment is first semi-encircled. The needle is inserted in the midst of the tissues, close

to the fractured edge of the patella, carried upward with its point closely hugging the bone, and brought out at the lateral and superior angle. It is reinserted close to the hole of emergence, and carried through the tendon of the quadriceps extensor, always close to the bone, then brought out at the other lateral and superior angle. Again it is pushed through the tissues and made to emerge at the side of the fractured edge opposite to that of entrance. The lower fragment is similarly semi-encircled by the other strand of silk, which hugs the bone and transfixes transversely the ligamentum patellæ. The joint is washed out for the last time, the two sutures tied with a square knot simultaneously, as much force being used as the silk will stand so as to firmly crowd together the fragments. The knot and cut ends of the silk lie between the torn capsule and are out of the way. The skin is closed with silkworm-gut, sealed with an aristo-collodion dressing, and a plaster-of-Paris splint applied over a lint bandage. In seven to ten days the splint should be opened and the sutures, if non-absorbable, removed. A second light splint is applied and worn for two weeks more. This is now taken off daily and passive and voluntary motion instituted, combined with cold and hot water douches and massage. Usually there will be ten degrees of motion obtained when the joint is first tested.

The writer thinks that the purse-string suture has many points of superiority over the usual method by wiring. The chief one is that the former secures absolute coaptation of the fragments, which is almost an impossibility when wiring is resorted to.

Gunshot Injuries from Modern Projectiles.

Davis, in the *Indian Medical Record* of August 1, 1898, sums up an article on the injuries caused by small modern projectiles as follows:

(*a*) If a bullet strikes a man obliquely a simple contusion may result, or there may also be a subcutaneous fracture.

(*b*) A ball may run parallel to the surface, grooving it and making a furrowed wound, which is by no means uncommon.

(*c*) A ball fired obliquely burrows for some distance just under or a short distance beneath the skin and then emerges, making a seton wound which often results in a persistent and troublesome sinus, if not in death.

(*d*) Sometimes a ball enters tissues and falls out again. A soldier was shot in the left erector spinæ. As there was only a wound of entry he was asked whether the field surgeon had removed the ball. His reply of "No" prompted a fruitless exploration. There were no signs of abdominal injury, so a second search was made for the bullet, and in enlarging the wound to do the needful the poor fellow was put to so much pain that he asked what we were trying to do with him, and on being told that we were trying to extract the bullet he replied, "I have it here in my shoe. I found it in my trousers after the battle."

(*e*) A bullet may perforate a part of the body and emerge almost unchanged, or it may itself be comminuted without necessarily fracturing a bone, which is really not so hard as is assumed.

Chest injuries are very troublesome. In the Græco-Turkish war a Martini

bullet passed through the left shoulder—humerus uninjured—of an Evzone, into his lung, where the *x*-rays showed it inaccessibly lodged. Pneumonia, pleurisy, hemorrhage into the pleura and empyema rapidly supervened. The chest was aspirated and a portion of rib excised, but the ball, which could not be removed, afterwards became encapsuled. He became extremely ill and would have died but for excellent nursing by the Red Cross Sisters. In another case where a man was shot through the right chest the ball had smashed a rib and perforated pleura, lung, and diaphragm, and also injured the liver. He survived his terrible injuries.

Pelvic and abdominal wounds are very serious and used to be a frequent cause of pyemia. The mortality from them is rather high, specially where the bowels or bladder have been perforated. Laparotomy has proved useful in some cases, but the majority die from severe traumatism or from acute emphysematous gangrene.

Syphilis Among British Troops in India, 1896.

In view of the interest now taken in the health of our own troops, the following extract from the "Report of a Departmental Committee on the Prevalence of Venereal Disease among the British Troops in India," London, 1897, p. 10, is instructive:

"The affected were all young men, not much more than lads, the average age of the 263 patients lying in the hospital in January, 1897, being less than twenty-five years, who upon entering the service had not shown any symptoms of constitutional taint. During their short term of military service a great part (in some cases more than half) of their time has been spent in hospital, either in India or at home. Before reaching the age of twenty-five years these young men have come home presenting a most shocking appearance; some lay there, having obviously but a short time to live; others were unrecognizable from disfigurement by reason of the destruction of their features, or had lost their palates, their eyesight, or their sense of hearing; others, again, were in a state of extreme emaciation, their joints distorted and diseased. Not a few are time-expired, but cannot be discharged in their present condition, incapacitated as they are to earn a livelihood, and in a condition so repulsive that they could not mix with their fellow men. Their friends and relatives refuse to receive them, and it is inexpedient to discharge them only to seek the asylum or the poorhouse."

Surgeon-Major H. R. Whitehead writes: "No one can imagine a sadder sight than the reception here of a batch of poor fellows suffering from this disease, from one of the troop-ships, utterly broken down in health, hardly able to crawl, covered with scabs and sores, with the foul odor of the disease about them, objects of disgust and loathing to themselves and all around them; their condition is indeed pitiable and shocking. Many of the cases and treatment in this division have been of the most revolting character, accompanied by horrible disfigurement and destruction of tissues. In some cases patients have been in this hospital for two or three years, unfit to mix even with their fellows, and if they have ultimately left this hospital alive, have been so completely crippled and so permanently disfigured as to render their

lives a misery to themselves and their chance of earning a livelihood quite hopeless."—George Ogilvie, B.S.C., M.B. Edin., M.R.C.P. Lond., in the *British Journal of Dermatology*, July, 1898.

The Urethral Length as Diagnostic of Prostatic Enlargement.

Dr. Keys, in the August number of the *American Journal of Medical Sciences*, sums up his paper as follows:

1. The urinary distance varies in the adult healthy male from something over six to something under ten inches, but may be honestly averaged at eight inches.

2. The shorter lengths are found in short individuals having a small penis. A large organ naturally contains a long urethra, and this is most certainly the case if the individual be tall.

3. The age of the individual seems to cause a very moderate increase in the urethral length, irrespective of disease, or perhaps even of individual size.

4. In prostatic hypertrophy the urinary distance averages more than eight inches, and is longer in cases of peripheral general hypertrophy than where the enlargement is median, or in cases of bar.

5. In a doubtful case a consideration of the urinary distance may become an important element of diagnosis.

Pott's Fracture.

R. W. Knox (*Medical Record*, Sept. 17, 1898), in summing up his article on the treatment of this fracture, reaches the following conclusions: (1) Plaster of Paris is the best dressing for fractures about the ankle; (2) this dressing should be put on immediately or as soon as possible after the receipt of the injury; (3) swelling is not a contraindication to the use of plaster; (4) it takes longer for ligamentous than for bony union, and a patient should not use his foot for locomotion for several months after the injury; (5) no other dressing so nearly prevents motion, and on this account it is especially valuable in compound luxations; (6) small capillary drains may be used, but rubber drainage tubes through the joint are unnecessary and capable of doing much harm.

MEDICINE.

Gout According to the Uric Acid Theory.

E. E. Cornwall, in an article on gout in the *Brooklyn Medical Journal* for September, 1898, contributes the following:

The history of gout can be traced back into remote antiquity. Uratic deposits have been found in the joints of Egyptian mummies. King Asa of Jerusalem, a grandson of Solomon, who flourished about 900 B.C., was troubled in his old age with "foot-disease." Hippocrates described gout in the fourth century before Christ, and from the time of Hippocrates to the present it has occupied a prominent place in medical, and also in general, literature. Its most characteristic manifestations have been known for three thousand years, and there can be little doubt that the disease is as old as civilization, if not older.

Notwithstanding the long period in which physicians have had opportunity to study this disease, they have been very slow in finding out its true pathology. Aretæus of Cappadocia, who lived about 100 A.D., said that the gods alone understood the real nature of gout, and at the present time we cannot say very much more with positiveness. Modern science has, indeed, made many important discoveries in the field of gout pathology, especially during recent years, but we are not yet able to offer in explanation of the nature of gout anything better than theories. Some of these theories are extremely plausible, but not one of them is universally accepted, and all of them are difficult of absolute proof.

Of the various theories of gout, the one which seems to explain satisfactorily the largest number of observed clinical and pathological facts is the uric acid theory. As early as 1775, Scheele identified the deposits in gouty joints as salts of uric acid, and in 1848 Sir A. Garrod placed this theory on a scientific foundation by demonstrating the presence of an excess of uric acid in the blood of patients with gout.

Uric acid is not necessarily a pathological product. It is regularly formed in the body, and excreted in the urine in health. This physiological uric acid appears in the urine in a quantity which bears a definite proportion (about one to thirty-five) to the amount of urea excreted. There is good reason to believe that it is formed in the kidneys themselves out of antecedents brought from the liver. While most of it is immediately excreted, a small quantity spills over, so to speak, and is carried by the renal veins into the general circulation, which brings it again to the kidneys, when it is passed out. In the food of most people some uric acid is directly introduced in the form of xanthin, hypoxanthin, caffeine, etc. This circulates in the blood and is passed out without much delay. In health no large amount of uric acid is allowed to accumulate in the body. When its prompt elimination is interfered with, and there is storage of considerable uric acid in the system, then it becomes pathological. Its storage in the system is the foundation on which gout pathology rests. A blood acidifier which has long had a reputation for producing gout is port wine. Nearly all wines and malt liquors are blood acidifiers. Most fruits are not, because the acids contained in them are more than compensated for by their phosphates.

Sedentary occupations, which tend to diminish the natural excretion of acids in the sweat, to increase the absorption of acids from the constipated alimentary canal, and in general to weaken the ability of the tissues to do their best duty, are provocative of gout, especially when taken in connection with the above dietetic causes.

Fever lowers the alkalinity of the blood by increasing oxidation. Oxidation means acidification, both etymologically and chemically. This explains why in convalescence from fevers, when the blood alkalinity rises again, there is apt to be uricacidemia.

Cold acts as a blood acidifier chiefly by diminishing the perspiration, and thus retaining in the blood acids which would otherwise be lost in the sweat, but no doubt also, to a certain extent, by increasing oxidation in the body.

Many drugs are blood acidifiers, notably the mineral acids. Some drugs, such as mercury, lead, and most of the metals, cause direct precipitation of uric acid in the tissues by forming with it insoluble urates. Painters' colic is a lead gout; urate of lead deposited in the walls of the intestines or the celiac ganglion accumulates there in sufficient quantity to cause irritation. Morphine is a notable blood acidifier, and no doubt owes part of its effect to its sedative action on the intestines, which allows the blood to absorb acids from them.

Hot-air Treatment of Joints.

Frazer (*Annals of Surgery*) gives the results of his conclusions drawn from using 300 baths to test its efficacy. The time given to the bath varied from three-fourths to one hour. The temperature of the bath averaged about 300° F., and in one instance it registered 375° without discomfort on the part of the patient. In drawing his conclusions he considers, first, the probable pathological conditions in the joint to be dealt with, and classifies these into: (1) those of rheumatic origin; (2) those of tubercular origin; and (3) those of traumatic origin. In the rheumatic, the synovial membrane, ligaments, cartilages and periarticular structures are all involved to a greater or less extent, and consist of thickening with slight injection, and with hyperplasia of the ligamentous structures, which interferes with the movements of the joints. The cartilages are frequently rough, and present erosions. In tubercular joints there is also a general involvement of all the structures. In the chronic traumatic forms the articular structures are stiffened with plastic exudate, which afterwards forms a fibrous tissue and adhesions, which are the results of blood-clots or an exudation which bind together the folds of the synovial membrane or the articular surfaces.

Judging the individual case from this point of view, the author considers that the gain to be accomplished may be accurately judged in the different cases, if the effects by the prolonged use of heat are regarded. The results of this heat are a diffuse hyperemia of the skin showing a dilatation of the capillaries; there is usually a sensation of numbness of the part, which he considers due to the action of the heat on the superficial sensory nerve filaments; the body temperature of the patient is about one-half to one degree above normal; the pulse is increased about ten to twenty beats—all of which suggest an increase of blood-supply to the active part. The patient usually experiences less pain and more freedom in movement after the application of the heat, which may be due to the anesthetic effect of the heat on the nerve-supply of the joint. Experimentally the physiological effect of such heat has been shown to be increased arterial tension, the elevation of the blood-pressure, dilatation of the blood-vessels, diminution of the erythrocytes, decrease of hemoglobin, increase in the elimination of nitrogen, and increase in the frequency of the heart's action.

The physiological effect of the local application of hot air on general metabolism is considered separately, and the results by different observers are quoted. Experiments were made by the author upon the patients with the same end in view, and in general coincide with the results of other observ-

ers, except in regard to the elimination of nitrogen, the results in his experiments rather pointing to the decreased elimination by the treatment.

The author gives the following conclusions of the physiological effects of hot air: (1) Temporarily increased circulation, respiration, and fever; (2) moderate fugacious local anesthesia; (3) loss of weight, probably due to loss of water from the skin and lungs; (4) a decreased nitrogenous output; (5) the effects of hot-air baths are purely local in origin.

The Value of Rectal Lavage and Irrigation.

Dr. Ramon Guiteras, in the *Post-Graduate* for August, 1898, has a very interesting paper on rectal lavage and irrigation, in which he says that rectal lavage and irrigation are practically the same. They both consist in washing out the lower bowel. Lavage usually implies simply washing out the rectum by injecting fluids, whereas irrigation generally carries the idea of watering the inside of the gut, or in other words, a better graduated method of bringing the fluid in contact with the inside of the rectum continuously during each treatment. This method has been known from time immemorial, and there is nothing new or original in it, excepting perhaps in the technique which will here be described, and the description of the relations of the tissues and organs of the pelvis to one another.

Rectal irrigation consists in allowing pure water or a medicated fluid to run into the bowel and out again for the purpose of cleansing it, or of treating pathological conditions either in the gut itself or in the neighboring tissues or organs.

As to the various fluids used in rectal irrigation, the author has divided them into bland and medicinal: *Bland*—Hot water at a temperature of from 100° to 120°; hot saline solution (one drachm to one quart) at the same temperature; hot flaxseed tea (flaxseed one drachm, water one quart; boil and strain). *Medicinal*—Solution of carbolic acid (half drachm to one pint)= $\frac{1}{250}$; solution of boric acid (tablespoonful to one pint)= $\frac{1}{30}$; solution of permanganate of potassium, $\frac{1}{2000}$; solution of nitrate of silver, $\frac{1}{2000}$; solution of bichloride of mercury, $\frac{1}{10000}$.

In conclusion Dr. Guiteras says:

1. I think that in rectal hydrotherapy by means of irrigations we have an extensive field for work and observation.

2. That the best results are obtained in cases where there are distinct pathological lesions in the rectum or lower bowel.

3. That the diseases of the genital tract, both in the male and in the female, are far more benefited by this treatment than is generally supposed.

4. That the influence of these irrigations on the secretion of the kidney, as shown in this article, is of the greatest importance, and should be tried in all cases where other means now in vogue have proved unsuccessful.

5. That the effects of this procedure on the circulation seem to be so stimulating and so opposed to the conditions of shock that it would be advisable to employ it in cases of severe operation where there have been or there is expected to be a considerable loss of blood, as a preventive measure.

THERAPEUTICS.

Loeffler's Solution for the Local Treatment of Diphtheria.

Professor Loeffler, reporting some of his recent researches in the *Deutsches Medicinische Zeitung*, has found the following mixture most effective for the destruction of the diphtheria germs:

Carbolic acid	2 parts.
Alcohol	50 parts.
Turpentine	50 parts.

When this solution was applied with a mop over the affected area, the germs were destroyed in twenty seconds. The same was true of iron chloride solution and other preparations of iron. However, as twenty seconds was an inconveniently long time for a local application in the practical treatment of cases, Professor Loeffler attempted to arrange for a solution more prompt in its action. Having found that certain substances, such as toluene, benzene, and similar derivatives, deterred the growth of the germs, he subjected these materials to a rigorous investigation, which led him to the conviction that the best results could be obtained from the following combination:

Alcohol	64 parts.
Benzol (benzene), or toluol (toluene)	36 parts.

The activity of this mixture is increased by the addition of a four-per-cent. iron chloride solution. Experiments made on the uvular surfaces of animals were attended with favorable results; and also in man he was able to demonstrate that where the affection was still within the bounds of local control, the last named mixture was enough to check the process with almost absolute certainty. In cases of mixed infection the remedy was not found to have as prompt an action on staphylococci and streptococci as upon the Klebs-Loeffler bacilli.

Professor Loeffler recommends the addition of ten per cent. of menthol in nervous or sensitive patients and very young children. He prepares the solution in this way:

Menthol	10 Gm.
Toluene	q. s. ad 36 Cc.
Then add:	
Creolin	2 Cc.
Sesquichloride iron solution	4 Cc.
Alcohol, absolute	q. s. ad 100 Cc.

In applying the solution the mucus is wiped off the affected portion with a cotton mop; then a pledget of cotton saturated with the solution is pressed firmly against the diphtheritic spot for ten seconds, and then the application must be immediately repeated. These applications should be continued at intervals of three hours for four or five days, when local symptoms will have usually subsided.

The therapeutic use of antidiphtheritic serum is not at all affected by this local treatment.

Phenomena of Insomnia.

According to the *Scientific American* an extended study of the phenomena of insomnia by De Menaceine, a Russian authority in medicine, brings him to

the conclusion that it is characteristic of persons who blush, laugh, weep readily, and whose pulse is apt to quicken upon the slightest provocation. Loss of sleep, however, he admits, most frequently results from overwork of either mind or body; overstrain of either kind dilates the blood-vessels of the brain and eventually paralyzes them, extreme cold producing the same results. Experiments also show that exercise of the emotions causes a rush of blood to the brain and sleeplessness, if occurring near bedtime. There is a common theory that sleep is required in proportion to the scarcity of red corpuscles in the blood, and thus all persons do not correspond in their need of sleep, and many authorities agree that the need of sleep depends upon the strength of consciousness.

Tincture of Iodine in Acute Infectious Stomach and Intestinal Diseases.

Dr. Grosch (*Berliner Klinische Wochenschrift*, 1898, No. 25) used the tincture of iodine in 300 cases in which septic infections were the cause of alimentary disorders. He believes this medication to surpass that of the calomel and cold water treatment in typhoid fever. Children received two to four drops every eight hours for three days. Adults were given six drops three or four times in twenty-four hours. Good results were obtained by giving it in the following formula:

Tinct. iodi	gtt. 15–18
Syr. simpl.	20.0
Aquæ simpl.	150.0

M.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,
Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

The Treatment of Dysmenorrhea.

Bantock (*British Gynecological Journal*, August, 1898), in writing of this condition due to displacement of the uterus, recognizes three typical forms of anteflexion: (1) That in which the flexion occurs at the junction of the body and cervix, in which the body and cervix are both directed forward, the former lying upon the bladder, and the latter in the axis of the vagina; (2) that in which the body of the uterus may be in fairly normal position, but the cervix is bent forward, the flexion occurring in the cervical portion; (3) that in which the anteflexed uterus—the bend being at the internal os—lies on its back in the bottom of Douglas' pouch.

In the treatment of these forms experience has taught three rational methods only: (1) Division of the cervix; (2) the stem pessary; (3) dilatation. The first operation must be looked upon as a serious procedure, and is rarely called for. In performing this Bantock adheres to the method of Sir James Simpson, who taught that the trouble was to be found at the internal os, and bilateral division of the cervix including this point was therefore indicated. For the third form of anteflexion the writer knows of no other treatment that

can be of any avail than that by the compound stem. Dilatation may be gradual or rapid, in Bantock's opinion the former being preferable, as it can be carried out in the consulting-room. A No. 4 or 6 bougie is passed and the size of dilator increased to 10, 12, or 14, as the case will allow or the patient can bear. The process is repeated as often as possible at intervals of three or four days before the next period comes on, and if begun within a few days of the last period temporary relief may be afforded in one intermenstrual interval. In the case of patients from a distance, and in the more serious cases when practicable, especially where congestion is a prominent feature, the patient is confined to bed, and the bougie is passed every second or third day, the instrument being left in as long as the patient can bear it.

Fever in the Puerperium.

J. Whitridge Williams (*American Journal of Obstetrics*, September, 1898) contributes some interesting observations on the bacterial causes of puerperal pyrexia, which are of importance not only from a scientific point of view, but from their practical aspect—the possibility of definite diagnosis and the exclusion of septic infection by dangerous pyogenic bacteria. Williams studied forty cases, of which twenty-two were delivered in the obstetric wards of Johns Hopkins Hospital, eight in the out-patient department of the same institution, and ten were seen in consultation. The method employed was that introduced by Döderlein, the lochia for investigation being removed from the fundus of the uterus under the strictest asepsis. With few exceptions the blood was also examined for malarial plasmodia. Patients having a temperature exceeding 100° F. (38° C.) were considered abnormal, but cultures were made only when the temperature rose to 101° F. (38.3° C.) or higher in the hospital, or 102° F. (39° C.) in outside cases, where the technical difficulties surrounding culture-taking are often considerable. By the methods employed were found: streptococci in eight cases; staphylococci in three cases; colon bacilli in six cases; gonococci in two cases; anaerobic bacteria in four cases; unidentified aerobic bacteria in three cases; bacteria in cover-glass, but cultures sterile, in four cases; diphtheria bacilli in one case; gas bacilli (bacillus aerogenes capsulatus) in one case; typhoid bacilli in one case; cover-glass, cultures and blood sterile, in eleven cases; cover-glass, and cultures sterile, with malaria plasmodia in blood, in one case. In the eleven sterile cases, culture and cover-glass, the presence of puerperal infection could be positively excluded, the temperature rise being due to autoinfection from the intestine, disturbances about the breasts, or other causes. Williams concludes that in future no one will be justified in treating as malaria a rise of temperature occurring during the puerperium, unless the examination of the blood reveals the presence of the characteristic plasmodia, and the examination of the uterine lochia demonstrates the absence of bacteria.

Ectopic Gestation in Accessory Tubes and Diverticula.

Henrotin and Herzog (*Revue de Gynecol.*, July–August, 1898) report one of those rare instances in which an ectopic gestation occurs in a diverticulum or

accessory Fallopian tube. It is well known that diverticula are not infrequently found in the walls of the Fallopian tube, and a few cases have been recorded in which the aberrant ovum has become fecundated and gone on to greater or less development in these tubal pouches. While some writers have considered that these diverticula are the result of inflammatory conditions, it seems to be now well established that they are congenital malformations. The case referred to adds an interesting feature to the study of extra-uterine gestation.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

A New Treatment for Laryngeal Tuberculosis.

Leduc, of Nancy (*Munch. Med. Wochenschrift*), described before the recent Congress of the French Association for the Advancement of Science a method for the application of remedies to the larynx to be carried out by the patient himself. It consisted in the aspiration of certain medicaments in powdered form, and the author reported twenty-five cases in which recovery had been attained. The only instrument necessary is a glass tube with a caliber of six millimeters and a length of twenty to twenty-five centimeters. One centimeter distant from one end it is crooked at an angle of 100 degrees. The powder having been placed in the crooked end, the tube is introduced into the pharynx, and the patient then takes a short inspiration with the lips closed over the tube. For this method diiodoform alone, or where pain existed diiodoform, mixed with cocaine or morphine, was employed. These aspirations were made from four to eight times a day. The author states that almost invariably patients who are quite aphonic, and who have the most pain on swallowing and the most serious dyspnea, show immediate improvement; the dyspnea subsides, the voice returns, and the patients can again take nourishment.

Leduc has used various powders, and has tried plain iodoform, which has usually so good an effect on tuberculous tissue, but with none has he had such excellent results as with diiodoform. His experience with this drug thus employed has led him to the conclusion that tuberculous laryngitis is one of the easiest of the symptoms of tuberculosis to alleviate.

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
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The Nature of Lupus Erythematosus.

In an article read before the Dermatological Section of the British Medical Association, Dr. C. P. M. Boeck, of Christiania (*British Medical Journal*, Sept. 10, 1898), draws the following conclusions:

1. Lupus erythematosus is always and in all its forms an eruptive inflam-

matory disease of which the localizations are determined by the vasomotor centers of the skin. It is never merely a local process.

2. Local irritation by heat, cold and drugs plays only an accidental and determining part by bringing the vasomotor system into play.

3. In view of the very frequent coincidence with tuberculosis it must be admitted that the latter plays an important part in the etiology of the skin affection, and is probably the real and essential cause of it. The fact that a connection may be traced between all forms of lupus erythematosus and certain affections the dependence of which on tuberculosis is beyond doubt, is an evidence for the tuberculous origin of lupus erythematosus.

4. As the tubercle bacillus cannot be proved to be present in the inflamed skin, it is probable that the inflammation is brought about through the toxins of the bacillus, which act in the first place on the vasomotor centers, and in the second place on the parts of the skin in which the vasomotor disturbances are set up.

5. The main anatomico-pathological changes are vasomotor dilatation of the blood-vessels, secondary poisoning of the tissue cells, and inflammation—the whole resulting very often in atrophy, rarely in necrosis.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
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Some Sources of Failure in Treating Lacrimal Obstructions.

The *Journal of the American Medical Association* of October 8, 1898, contains a paper by Dr. Leartus Connor, of Detroit, on "Some Sources of Failure in Treating Lacrimal Obstructions." The Doctor presents some valuable suggestions, which should be followed closely by those claiming to treat these oftentimes obstinate affections.

Bearing on the sources of failure, the author directs attention: (1) To a possible constitutional disorder, such as syphilis, rheumatism, etc.; (2) eye strain; (3) nasal disease, as some morbid condition of the nares adjacent to and involving the opening of the duct into the nose; (4) faulty technique, undue violence in some cases, and timidity in using force adequate to dilate the stricture in others.

The author warns against becoming wedded to any one shape and size of probes: "Clearly, one who sees no advantage, under any circumstances, in the use of probes larger than Bowman No. 6 will not relieve a case that calls for Theobald No. 16; or he who thinks that only the largest probes will avail aught will fail in the best results in a case which needs Williams No. 5; or he will err who uses any probe when the local application of hot water and the pumping through the lacrimal canals by Gould's method of aseptic or antiseptic fluid suffice to remove the obstruction."

THE MEDICAL AGE

VOL. XVI. DETROIT, NOVEMBER 25, 1898. No. 22.

ORIGINAL CONTRIBUTIONS.

INGUINAL HERNIA; SCHEMATICALLY DEMONSTRATED, WITH ILLUSTRATIONS OF THE ACCEPTED MODERN OPERATIVE METHODS FOR THE RADICAL CURE.

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In describing inguinal hernia we will confine our remarks to what is designated as "indirect" or "oblique" inguinal hernia, or the variety that follows the course of the spermatic cord. In this the viscus makes its exit through the abdominal wall by passing through the so-called "internal abdominal ring," an oval opening in the transversalis fascia, then following the course of the cord along the inguinal canal and through the "external abdominal ring," a triangular opening in the aponeurosis of the external oblique muscle just over the outer portion of the crest of the pubis, then extending into the scrotum, forming a "complete" or "scrotal" hernia. If the viscus is arrested anywhere in its course and does not pass through the external ring, it is called an "incomplete" hernia. The reason for confining our description to this form is that about ninety-two per cent. of inguinal herniæ follows this course. The other variety, the "direct" or "straight" inguinal, forms a very small percentage, and may properly be classed with the ventral herniæ, for the viscus protrudes directly through the abdominal wall behind the external ring.

The normal position of the spermatic cord, the openings through which it passes, and the different layers of tissue in this region are shown in Fig. 1, while Fig. 2 shows the peritoneum extending down through the internal ring, inguinal canal, external ring, and into the scrotum, forming the hernial sac or "pouch."

The more modern operative methods for a radical cure have come into practise since the introduction of antiseptic surgery. Surgeons first directed their attention towards the sac. Obliteration of its canal, torsion, displacement, folding it into a pad, and excision were the methods resorted to by the various operators to obviate recurrence. Prominently identified with these methods were the following: Czerny, Banks, Barker, MacCormack, Championniere (ligature of the sac and suture of the canal); Socin (ligature of the sac

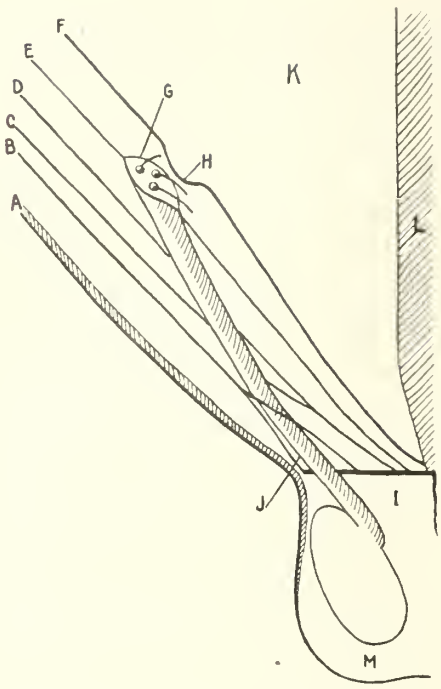

FIG. 1.—Normal relations. A, skin and superficial fascia; B, external oblique muscle; C and D, internal oblique and transversalis muscles forming conjoined tendon below; E, transversalis fascia; F, peritoneum; G, internal abdominal ring; H, infundibulum; I (dark line), crest and symphysis pubis; J, external abdominal ring; K, peritoneal cavity; L, rectus abdominis muscle; M, scrotum.

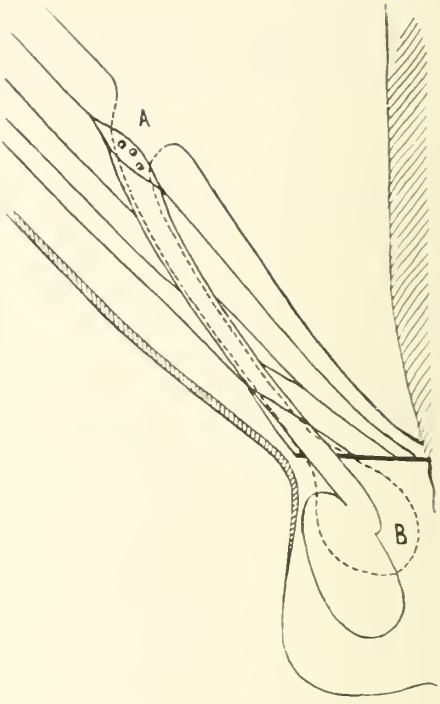

FIG. 2.—Hernial sac protruding. (Dotted line shows peritoneum carried down, forming hernial sac). A, neck of sac entering internal ring; B, sac in scrotum lying over testicle.

and extirpation); MacEwen (infolding of the sac, forming pad); Ball (torsion of sac and suture of sac and canal); Kocher (torsion of sac with sac brought through aponeurosis of external oblique muscle).

Closing the canal by cicatrization was practised for a short time. This became known as the operation of McBurney, by whom it was prominently advocated. His form of procedure was to make an incision parallel to Poupart's ligament and over the inguinal canal. The sac was freed and ligated very high up. The skin edges were fastened by tension sutures to the muscular layers on either side, and the wound was tamponed with iodoform gauze arranged in wedge shape and extending down to the peritoneum. The wound was then allowed to heal from the bottom by granulation, the theory being that the plug of scar tissue thus formed would make an effectual barrier to descent of the hernia. This practise was soon abandoned by its most earnest advocates, for the cicatricial tissue soon yielded to the pressure from within and many cases of relapse followed.

None of the methods thus far described proved satisfactory, and surgeons

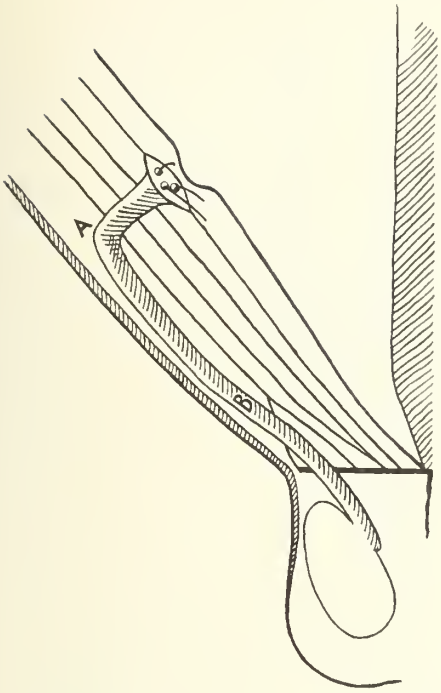

FIG. 3.—Halstead's method. A, cord passing through transversalis, internal and external oblique muscles; B, cord lying subcutaneously, passing over external pillar of the ring.

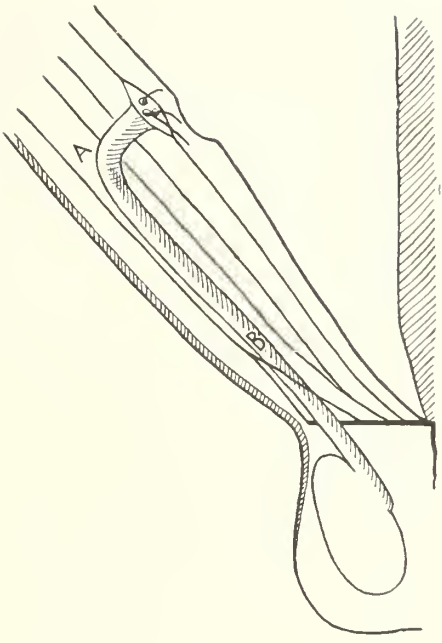

FIG. 4.—Bassini's method. A, cord passing through transversalis and internal oblique muscle; B, cord placed between internal and external oblique muscles and passing through external ring.

sought a new means in *displacement of the cord* on the theory that the inguinal canal could not be effectually closed while containing this movable tissue. Bassini and Halstead were among the first to furnish a technique to accomplish this end. They recommended the formation of a new canal for the cord, the former placing it beneath the aponeurosis of the external oblique muscle; the latter, subcutaneously. George H. Fowler, of New York, offers a later method, which consists in placing the cord within the peritoneum. A diagrammatic representation of these methods follows. Fig. 3 (Halstead's operation) shows the cord placed between the external oblique muscle and the integument, passing outside the external ring. In Fig. 4 (Bassini's method) the cord is seen passing between the external and internal oblique muscles and through the external ring. Fig. 5 (Fowler's method) has the cord placed within the peritoneal cavity and passing down to the pubis, then through the intervening tissues and external ring.

Fowler's method is of recent date. The efficacy of an operation of this kind is proven by time. Therefore what is to be said in favor of this method must at present necessarily be largely theoretical. He places the cord within the peritoneum, and by so doing it becomes the only tissue strictly within that cavity and may be referred to as a "foreign" tissue. It not only lies free within the peritoneum, but it is not supported by surrounding tissue as it is in

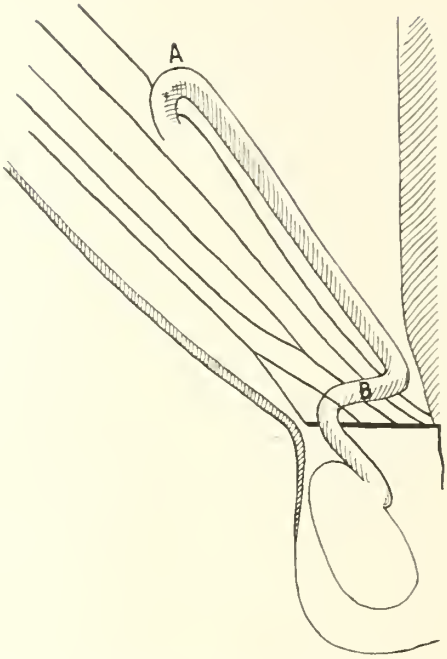

FIG. 5.—Fowler's method. A, cord entering peritoneal cavity; B, cord passing through peritoneum, transversalis fascia, conjoined tendon, and external ring.

its natural channel. Whether this position will predispose to adhesions, dilatation of the vessels, or atrophy, future reports will tell.

The methods of Halstead and Bassini are quite similar. While the former offers no advantage over the latter, and while Bassini retains the cord nearer its normal location, his has been more generally accepted, and is the one we shall describe in detail. In describing this operation we shall divide it into five different proceedings or steps, with each step illustrated.

The external incision begins at a point nearly or quite on a level with the anterior superior spine of the ileum, continues obliquely downward parallel to and about half an inch internal to Poupart's ligament, and ends at the center of the external ring. This incision is carried down until the aponeurosis of the external oblique is freely exposed for a distance of from two and a half to three inches, showing the contents of the ring (Fig. 6). A director is passed through the external ring just beneath the aponeurosis and the aponeurosis is divided to from one-half to one inch above the internal ring. The cut edges of the aponeurosis are held up with forceps and dissected free from the underlying muscles as far as the edge of the rectus internally, and externally, until the shelving part of Poupart's ligament has been exposed. The sac and cord are then isolated *en masse* (Fig. 7). The sac is now separated from the cord. This separation is carried high up within the internal ring, the sac is opened and the contents reduced into the abdominal cavity. The sac is then ligated or sutured above the internal ring and excised, and the cord elevated (Fig. 8). The cord is held up and the edges of the aponeurosis rolled back, while

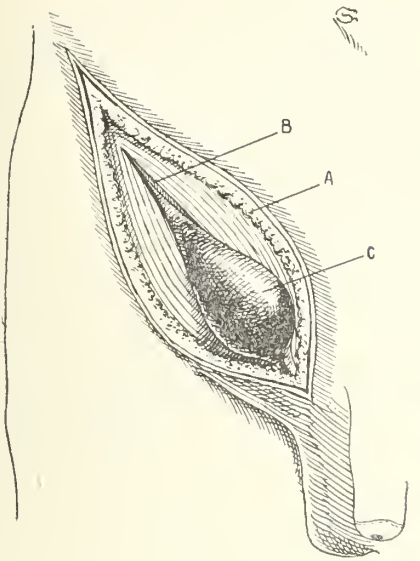

FIG. 6 (first step).—A, skin and superficial fascia; B, diverging fibers of external oblique aponeurosis forming external ring; C, hernial sac protruding through the ring and into the scrotum.

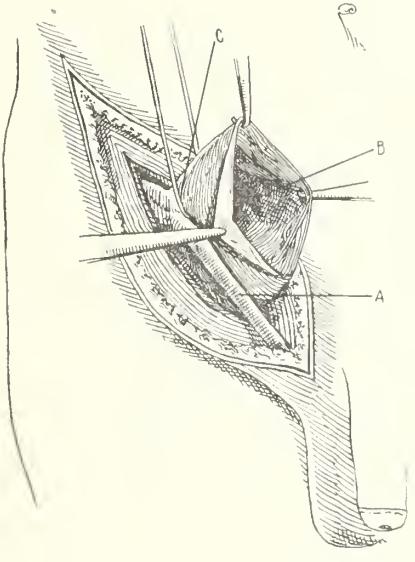

FIG. 7 (second step, showing sac and cord exposed).—A, spermatic cord; B, hernial sac elevated and opened; C, neck of sac with loose ligature surrounding.

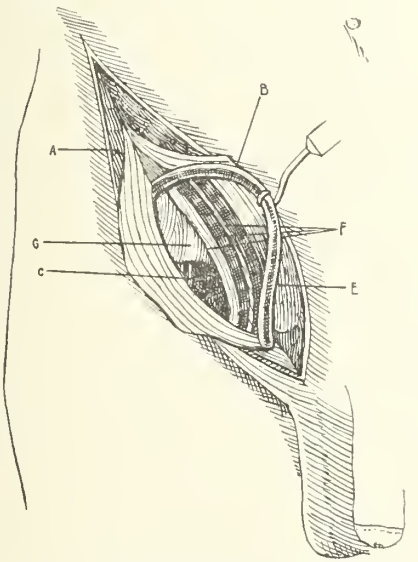

FIG. 8 (third step, after Dennis, showing sac extirpated and cord elevated).—A, subcutaneous fatty tissue; B, upper portion of the divided aponeurosis dissected from underlying structure; C, under portion of aponeurosis of external oblique; E, cord; F, internal oblique, transversalis muscle and fascia; G, floor.

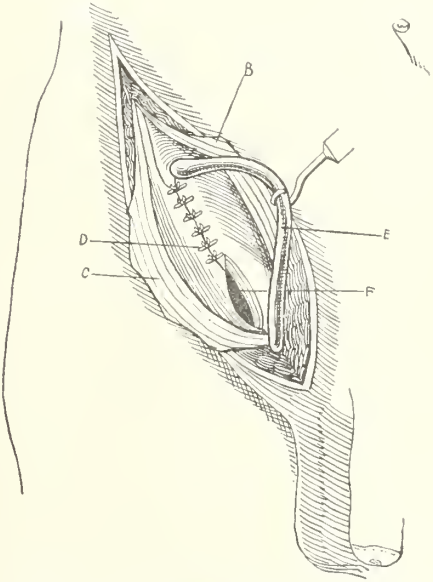

FIG. 9 (fourth step, after Dennis, showing cord elevated and deep sutures in place).—B and C, aponeurosis of external oblique reflected; D, deep sutures in position; E, cord elevated; F, internal oblique, transversalis muscle and transversalis fascia to be united by suture.

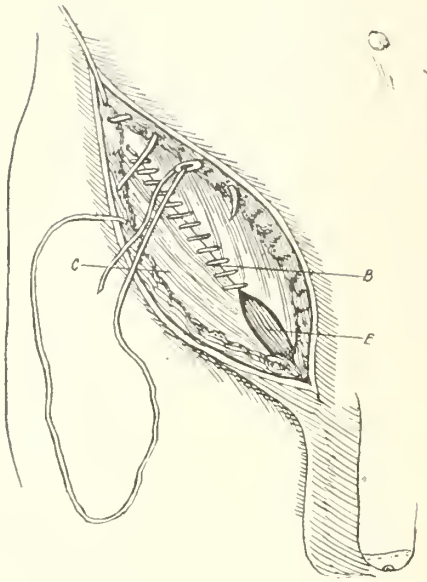

FIG. 10 (fifth step, showing cord placed in new canal).—B, reflected portions of the aponeurosis brought together; E, cord passing through external ring; C, subcutaneous tissue with subcuticular suture.

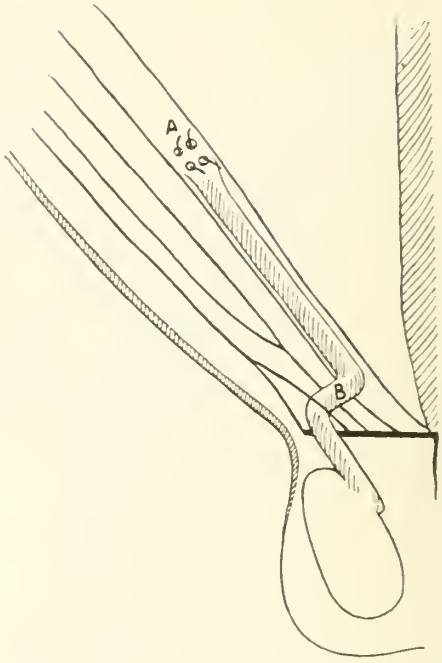

FIG. 11 (first series, author's method).—A, cord passing down between transversalis fascia and peritoneum; B, cord passing through transversalis fascia, conjoined tendon and external abdominal ring.

several deep-buried sutures are introduced beneath the cord. These are best introduced from within outward and should include internal oblique and transversalis muscles, the transversalis fascia (and sometimes the outer margin of the rectus abdominis) on the inner side, and the deep shelving portion of Poupart's ligament on the outer side. The upper suture is so placed as to crowd the cord above the site of the internal ring. Interrupted sutures best answer this purpose (Fig. 9). The cord is now placed on the floor of the new canal and the cut aponeurosis is closed over it by means of a continuous suture extending as near the pubis as possible without causing constriction of the cord. The skin wound may now be closed by either interrupted, continuous, or subcuticular suture, Fig. 10 showing closure by subcuticular method. This completes the operation.

The method next illustrated (Fig. 11) may have been tried by different operators, but I have nowhere seen it described or illustrated. Fowler in his article (*Annals of Surgery*, November, 1897) mentions the possibility of this displacement of the cord, but considers it difficult to separate the fascia. I have tried this method in several cases in the past two years, and have experienced no trouble where the cases were of short standing and where the neck was not too distended. This procedure is simple and the most rational of those described. It continues the structures of the cord in their natural bed of sub-

serous areolar tissue until the crest of the pubis is reached. The same details as in the other operations are carried out until the sac is ligated and removed. The transversalis fascia is now separated from the peritoneum, leaving the deep epigastric artery in contact with the latter.

The conjoined tendon is now severed by a curved incision, the latter portion curving toward the crest of the pubis. The fascia is then incised down to the pubis by means of a grooved director and scissors, the incision being kept well down behind the crest. The free edges are elevated, the cord is dropped in place, and the margins of the fascia united. The wound is closed as in Bassini's operation, leaving the cord at the lower extremity.

This method carries out a clearly rational theory, and the results obtained whenever tried have been highly satisfactory.

Various materials for sutures have been used in these operations—silver wire, silkworm-gut, silk, kangaroo tendon, catgut, etc., all finding their exponents. What is desired is a material that will serve its purpose for three or four months and then be absorbed. Wire and silkworm-gut answer the first purpose, but do not absorb, and afterwards act as foreign bodies. Silk and ordinary catgut absorb too readily and do not accomplish the desired result. Ligatures of kangaroo tendon or chromicized catgut prove the most serviceable for the deep sutures. No particular method will prove successful unless the structures are approximated in their correct anatomical relations, carefully sutured, and with the technique of perfect asepsis.

Statistics so far show that eighty to ninety per cent. of these operations result in permanent cure, while the mortality does not reach one per cent.

The best results follow operations performed on subjects between the ages of four and fifty, while many successes have been reported at the extremes of three months and eighty years. It has been estimated that there are about three and a half million trusses worn in the United States. It is a great consolation to know that three million of these can be discarded.

RAYNAUD'S DISEASE.

BY H. E. RANDALL, M.D., DRYDEN, MICH.

Raynaud's disease, from Raynaud, who first described it as symmetrical gangrene or sphaceloderma, is a vasomotor affection in which the prominent symptoms are paroxysmal attacks of pain, pallor, coldness or numbness, or a congestion of the extremities, which may go on to gangrene. A chilblain is the simplest and mildest form of this condition, and the apparent pathology is a congestion or stagnation of the circulation in the extremities or the periphery of circulation.

Diseases of the sympathetic system during the past have become fewer and fewer each year, until a very recent date, when the importance of this delicate system assumed more prominence in the pathology and treatment of many medical and surgical cases. How wonderful and intricate a system it is! The system that regulates growth and nutrition is but barely appreciated by physicians, and its physiology is still shrouded in such mystery and darkness, and

so closely connected with the great principles of life itself, that this closed book may never be opened to the eager eye of science.

The diffuse vasomotor affections, due probably to diseases of the sympathetic system, are digiti mortui, angio-neurotic edema, erythromelalgia, Mowan's disease, and Raynaud's disease. The differential diagnosis is sometimes easy and sometimes very difficult. Mowan's disease is an analgesic paresis with whitlow of superior extremities, and the absence of pain differentiates it from sphaceloderma, in which the pain is excruciating. Syringomyelitis is usually unilateral, and judging from its pathology the symptoms would be muscular atrophy, sensory dulness with ataxia. Erythromelalgia is a peculiar affection in which circular patches of redness or of pallor are accompanied by a hot burning pain in part affected. Angio-neurotic edema occurs suddenly and is intermittent in character. Senile and diabetic gangrene can be diagnosed from the age or the presence of sugar in the urine. Raynaud's disease being comparatively rare in this country, I have thought it appropriate to report the following case:

In May, 1898, I was called to see Mr. T. W——, aged fifty-two years, a man greatly above the average in intelligence, the picture of health in his face, but quite helpless, owing to the ravages of this disease. The right leg had been amputated four inches below the knee and the left leg had been amputated above the knee. Up to six years ago, when the disease first came on, he was as healthy as a man could be. He had never been sick a day in his life, except a few bilious attacks, and said he did not know what headaches were. His family was of a very robust type. One grandfather died of cancer at the advanced age of ninety-three years, and the patient's brother is said to have died of cancer of the bladder. Otherwise family history is good. No nervous diseases of any kind are known in the family. Patient has used whiskey some, but was not a steady drinker. He has been married twice, but has had no children.

The affection first made itself known in 1892, when, with severe paroxysms of pain, a small red blotch appeared on the instep of left foot, and this was followed by others of like character on the calf of the leg. About this time he noticed a peculiar cracking or ticking sensation in his head just back of the ears and across base of brain. Whether this has any connection with the disease, I do not know. These red blotches on leg would come and go, but in a short time the whole leg below the knee became swollen and blue, and just underneath the skin were several nodules varying in size from a hickory-nut to a hen's egg. The large toe now became gangrenous, and in January, 1895, Dr. Hal C. Wyman, of Detroit, amputated the leg above the knee.

The right leg passed through a little different course. The leg became swollen from the knee downward and serum exuded through the skin, except the skin of foot, which peeled off. The third toe now became gangrenous, and in the following April, four months after the operation on the left leg, the right leg was amputated four inches below the knee. Following this the patient had relief for a couple of years, when both hands became red and swollen. Last spring he was confined to bed for several weeks with the pain. When I was called in May both hands and arms were very red and swollen

almost to elbow. Black or blue spots would appear upon the fingers and disappear again. Small nodules formed in the arms and would disappear in two or three days.

The patient has been in very competent hands and all sorts of drugs have been tried, the Pharmacopœia being well-nigh exhausted. He had been saturated with mercury, iodide of potassium, tonics of all kinds, alteratives, digitalis, strychnine, etc. On the recommendation of Dr. Cotes, and thinking that nitroglycerin was indicated by the hard and rather slower than normal pulse, he was placed on that drug, although his face was red and flushed. This with massage has been the main treatment. The massage alone will at times relieve the pain, but as this was not sufficient I ordered a solution of two grains of morphine in two ounces of tincture of opium, applied locally, which controlled the pain. These paroxysms of pain have been so severe as to keep him awake until late in the morning, when he would catch a couple of hours' sleep.

The prognosis of Raynaud's disease is unmitigatedly bad, and I finally expect my patient to lose his upper extremities as he has his lower. Widespread gangrene in Raynaud's disease is uncommon and only superficial portions slough off after the epidermis is raised up into blebs, which rupture, leaving a dry surface. When gangrene threatens the hand should be wrapped in flannel or cotton-wool, and when it occurs dress antiseptically until line of demarcation forms, when dead parts may be removed by scissors, forceps, or antiseptic poultices. Nitroglycerin with massage alleviates the pain and keeps the patient moderately comfortable.

PUERPERAL SEPTICEMIA.

BY S. HERBERT BRITTON, ADELAIDE, OHIO.

I want to say by way of preface that there is so much to read these days, so much that we feel that we ought to know, and so much being continually found out, that when we think of discussing a subject in its various connections we find ourselves overwhelmed with the magnitude of the field before us. And we are tempted to take in too much collateral territory. Indeed, I have found that one great trouble in discussing any subject is getting sidetracked, in our attempt to include all that seems to have a bearing on it. Apropos of this, I may as well confess that if there is one thing that I have been trying to learn it is not to take in the whole of the science when considering a medical subject.

Therefore, hard as it may be to repress the extensive references that the magnitude of our subject might seem to demand, and interesting as it would be to rehearse the opinions and observations of great scientists along down the line of progress, as to what are the essential processes that are present at death or the part that living micro-organisms play in the processes of putrefaction—much as we might be allured by these highly interesting subjects, we leave them all. But after only a cursory glance at our subject, we can also see that it is useless for us to think of giving our attention to the etiology,

pathology, or even symptomatology of puerperal septicemia. The treatment only of the subject will be considered in this paper, with the exception of a few general remarks.

We must premise, then, that while we cannot ignore the ubiquitous bacillus, nor the fact that he may be no small factor in this malady, we may, with all due respect to his dignity, leave him alone in his *fin-de-siècle* splendor. For this much will be admitted by all, we believe, viz., that puerperal septicemia is a disease of infection; and how much of the process of the manufacture of the poison is chemical and how much due to the presence of bacilli need not concern us. Of course we know that, according to experiments made by Pasteur and others, putrefaction only takes place when a body comes in contact with living germs. And if this view should be confirmed, we will have demonstrated the apparent paradox that death is really ushered in by life.

We can say in passing that, whether antisepsis means the slaughter of millions of living organisms or the disinfection and removal of filth, it has beyond question been of the most practical value of any advancement that has ever been made in our science in any age of which we have the slightest record. It is easy to see, then, that even the therapeutics of this disease is a colossal theme, when we reflect that it is not expected that we can give it more than a few minutes' notice. And I am compelled to say, if asked why I have chosen it, that it is solely because I want to know more about it. Yet it is true that I have seen some cases of these continued, exhausting, post-partum fevers, and can say from experience that, after the infection becomes systemic and fully developed, they are deplorable cases and for the most have the appearance of hopeless ones. But it is because I have seen even these cases get well that I am particularly anxious to know more about them.

For instance, I treated some ten years ago a case of what would undoubtedly now be considered one of the worst forms of puerperal sepsis. I gave her quinine in twenty-grain doses, repeated *pro re nata*, and intra-uterine irrigations of bichloride of mercury morning and evening. She continued for one week, in spite of the quinine, to have a temperature of 105° morning and evening. Her fever went down, however, at the end of that time, but she then had an abscess in the region of the right Fallopian tube as large as an orange. This suppurated and was discharged *per vaginam;* and in spite of all of this she recovered and is to-day a good specimen of physiological health. I will say with regard to this case that she had no symptom of an abscess until she had a relapse with renewal of fever, the cause of which I do not now remember.

What can we do, then, with these continued, exhausting, post-partum fevers? I mean those cases particularly where there are the well developed symptoms of a blood poison? These are without doubt the worst cases, and have the worst prognosis. But some of them do get well occasionally, and I feel that we should continue to search for a remedy—one that will neutralize the poison in the system or eliminate it. I mean to say that I believe we may be able to do so approximately, and get the rest of the work done by indirect measures, as we do in other diseases. I am glad to notice that there is considerable stir in this direction, since I know of a few compounds that are put on the market with this intention.

But in the therapeutics of puerperal septicemia as we now treat it, we must say that asepsis and antisepsis are the watchwords. We need only say that when this mode of handling parturients was instituted in the New York Maternity Hospital in 1883 there was a decided and an immediate reduction in the mortality of puerperal cases. Comparing a period of nine years before and nine after its adoption shows a decrease from 4 in 100 confinements before to .87 of one per cent. after! We could all agree that all parturient women ought to be confined in hospitals specially designed for obstetric purposes; but the great mass of them not only cannot have these advantages, but a great many have the most unhygienic surroundings.

Let me mention the therapeutic principles that are now utilized in puerperal cases in the New York Maternity Hospital, as enunciated in the American Text-book of Obstetrics, published in 1897 by Saunders of Philadelphia: "The first indicated procedure is the removal of the microbes that have not yet entered the tissues, which removal is effected by ablution and injection with antiseptic fluids. The second procedure is to seal the entrances, which is done by cauterization. Third, to clean the intestinal canal by an aperient or by enemas. Fourth, sustain strength of the patient, in order to give her a chance to throw off the poison that has already entered her tissues or circulates in her blood. Stimulants are used freely and food as much as can be digested. Tonic drugs are also administered. Fifth, to combat pain by narcotics and ice. Sixth and final procedure is to reduce the patient's temperature, if it becomes dangerously high, by ice-bags, by an ice-water coil, by refreshing ablutions, by cooling baths."

Such are the principles at the basis of the treatment of puerperal infection at the hospital above mentioned, and it may be regarded as the recognized mode of handling this disease in this country. But the special way in which these are to be carried out is not the same with every physician. Strange to say, the specific therapeutic measures differ widely. We find that eminent authorities in different parts of the world are far from agreeing with Dr. Garrigues, who was for ten years consulting obstetric surgeon to Maternity Hospital and who is the author of the above enunciated principles. For instance, it seems strange that any one could offer any objections to thorough antiseptic intra-uterine irrigations. But there are many noted authorities opposed to it. Some condemn them absolutely. And one of the great doctors of Finland has produced the best known record of a period of four years, during which service he treated from five to eight hundred cases per annum. The mortality was $\frac{29}{100}$ of one per cent. This man used irrigation only once or twice a year. The dates that embraced these four years were 1884 to 1888.

Some use ergot three times a day to hasten involution. Others say that it simply imprisons the poison. Some are very radical in their remarks against the curette. Even here, then, we have a good illustration of the fact that "doctors disagree." Some obstetricians pack the uterine cavity with iodoform gauze. Dr. Garrigues says that this is inefficient in real septic infection, and he himself uses irrigations with great success, as we know. He uses creolin or bichloride. He also uses iodoform in suppositories, introduced through a bivalve speculum.

We have lately heard of the Carossa treatment. It is as follows: Pass a catheter to the fundus uteri and then fill the cavity around the catheter with gauze. Then alcohol sufficient to saturate the gauze is injected up through the catheter every hour, day and night, for from two to six days. The strength of the alcohol should be from twenty to twenty-five per cent. The details of this treatment were presented at a meeting of the Western Surgical and Gynecological Association at Denver in December, 1897. At this meeting there was a warm—even a caustic—discussion of the treatment of puerperal sepsis.

Another suggestion was offered by Dr. S. E. Sheldon, of Topeka, and was urged as a reliable measure. Dr. Sheldon had employed it in some thirty cases with complete and unvarying success. He was very enthusiastic in the matter. It is as follows: Inject with a long uterine syringe the uterus full of an antiseptic oil, composed of carbolic acid 1 drachm and sterilized olive oil 7 or 8 drachms. Repeat every twenty-four hours. I wrote to Dr. Sheldon lately concerning it, and he still insists that it is a wonderful success.

Some time ago I noticed in a medical journal that the same doctor reported a saturated solution of chlorate of potassium to be a specific in blood poisoning, especially in puerperal septicemia. I must confess that the word specific is a pretty strong one to use when speaking of the treatment of puerperal sepsis. But inasmuch as the formula of chlorate of potassium is $KClO_3$, and since they say that it parts with its oxygen freely in the system, there might be more truth in it than we suspect. But I should want some ocular demonstrations for both this and the drug Echinacea, that we are reading so much about now, before I would be willing to say they are specifics in septicemia.

Such is the divergence of medical opinions as to how to accomplish the same thing. And while the principles of the treatment of this malady are well agreed upon, the immediate technique of getting hold of the monster is far from settled, and we cannot but observe that there is still a great deal of latitude in the therapy of puerperal sepsis, in spite of the phenomenal progress that has been made in that direction. Then there are a thousand and one circumstances that may make it necessary to modify any of these that may have been agreed upon. For instance, the debility may be so great as to preclude application of ice, and we should then be obliged to use hot-water coils or hot-water bags or hot poultices. Lately, in a case of puerperal cellulitis, I have found the application of cloths wrung out of hot water and kept hot by the further application of hot-water bags a very efficient application.

Vomiting is another disturbance that may break the routine that we would like to follow in any given case. In fact, I have been strongly impressed, while trying to manage these cases and other serious maladies, with the great need of good judgment or good common sense. And while no one could love science better than I, yet I would give my unqualified approval to this quotation from the late lamented Dr. O. W. Holmes: "Science is a first-rate piece of furniture for a man's upper chamber, if he has common sense on the ground floor."

There is another idea that comes to me while preparing this paper. It is this: that there is a volume to be known about the hygienic management of

these cases. There is much to be learned by reading, and a great deal that we will never know if we don't learn it at the bedside.

Dr. Taylor, editor of the *Philadelphia Medical Council*, is a man that is particular about what he publishes and is careful what he says. He affirmed lately that the modern treatment of puerperal sepsis—part of it at least—is continued administration of saline cathartics, and I would not be at all surprised, if it were carried to as great an extent as is possible without too much inconvenience, if it should eventually come to be the nearest to a specific, so called, that we shall be able to get in the present state of medical science. But, as I am somewhat of a crank on the matter of using the alimentary canal in the treatment of a great proportion of the 1400 different diseases that may afflict human beings, I will say nothing further along *that* line. For if I should begin now to try to tell what I *think* I can do with Epsom salts, it would take more time and space than is at my disposal.

Let me say one thing in conclusion: The longer I practise medicine, the more I read, the more I learn, the more am I inclined to get into special work. Specialists are a legitimate outgrowth of honest work in the field of medical practise. It is the specialist that gets at the bottom of his branch, and I am glad, personally, that there is such a tendency in that direction at present. It is through the observations and investigations of the specialists that we venture to hope the time may come when the whole treatment of puerperal infection will be practically definite. For the general practitioner to be so silly as to try, in this age, to grasp the whole territory of medical practise is inexcusable and also an injustice to his patients. To be an all-round expert and Jack-of-all-trades is not advisable in this work. Yet many there are that attempt it; because, I suppose, they are afraid somebody knows more about some things than they do. I believe such men have entirely failed to appreciate the responsibilities that they have assumed in accepting the title of M.D. The *Columbus Press-Post*, not long ago, made this comment on a certain class of people: "There are too many men in the world trying to bore auger-holes with gimlets."

If by what I have said in the foregoing I have succeeded in making this subject worthy of further discussion and study, I have done all that I could reasonably expect.

An editorial writer in *The Sun* gives the Surgeon-General's estimate of the number of deaths from disease up to the present time at about 1500, or only about three-fifths of one per cent., in a total force of about 250,000 men. He cites a Konversations-Lexicon published in Leipsic as stating the loss of life from disease in the German army during the Franco-Prussian war to have been nearly two per cent. A French medical authority, Dr. Cheun, according to the *Army and Navy Journal* (also cited by *The Sun's* writer), gives the number of "sick and frost-bitten" in the French army as 339,421. The Hispano-American war lasted about five months. The Franco-Prussian war lasted about seven months. The advantages of the Germans in being thoroughly prepared, the writer thinks, go far to neutralize this disparity of duration.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

TABES AND SYPHILIS.

The conflicting issues dependent upon statistics have seldom been more admirably demonstrated than in the divergent and opposite opinions which continue to be expressed in regard to the part played by syphilis in the etiology of tabes dorsalis. From Virchow first came the suggestion that syphilis might be causative of tabes, and Fournier in France, and Erb in Germany, in spite of vigorous contradiction on the part of others, have found syphilis to be a factor in so large a proportion of their cases that they can only conclude a relationship to exist between these diseases. Different investigators have varied very much in their estimates of the part played by syphilis in the production of tabes, some showing the proportion to be ninety per cent., while others have only shown figures that would not indicate anything beyond the range of accidental association.

In a recent number of the *Deutsche Medicinische Wochenschrift*, Dr. Schreiber, of Budapest, sums up some of the statistics regarding the relation of these diseases to each other. He cites many facts of observation which would tend to disprove the theory of the syphilitic origin of tabes. Among these, the following facts may serve as examples: Neftel, of New York, who made a six months' sojourn among the Khirghis of Central Asia, declared in his work—"A Contribution to the Etiology and Therapy of Tabes Dorsalis"—that while syphilis was very wide-spread during the entire period of his stay in that country, he did not see a single case of tabes. Of Japan, Dravie Trennen says: "While syphilis is very wide-spread, tabes is very rare." The same writer's experience among the negro race coincides with that of other observers, that while syphilis is very common, a negro case of tabes is seldom seen. Leopold Glück, in his study of tabes among the villagers of Bosnia and Herzegovina, gives his own opinion and that of five of his active colleagues, to the effect that while they have under observation numerous cases of syphilis, not one of them had ever seen a single case of tabes dorsalis. Holzinger, in an interesting contribution on the nervous diseases of Abyssinia, says that among 107 cases of nervous disease he had only seen six cases of tabes. He declares syphilis to be unusually wide-spread in Abyssinia. Camuset declares that tabes is unknown to the Arabs, in spite of the fact that syphilis has existed

there from the earliest times. These facts are taken by Dr. Schreiber to indicate the impossibility of syphilis being the chief cause of tabes. If it were so, tabes would certainly be seen in the countries in which syphilis has always been manifest.

Why syphilis should cause tabes, pathologists have never precisely indicated. Syphilis causes, as is known, lesions totally unlike those which prevail in tabes. The syphilitic lesions affecting the nervous system originate outside of the nervous centers themselves, or if within the nervous centers are essentially interstitial in character. The morbid process in tabes is in the nature of a systemic degeneration. The assertion that syphilis cannot cause a lesion different from the effects of the disease already known cannot be made, but so far as the evidence goes in the case of tabes the reasoning that it does so is purely statistical, and there is at least some merit in the assertion that you can prove anything by statistics, except the truth.

The notion of Strümpell, that there is a toxic lesion of syphilis which resembles the effect of ergot or curare, still remains in the nature of a hypothesis. That degenerative lesions may follow in the train of the toxins of syphilis, in the same way that the palsies of diphtheria are attributable to the toxins of that disease, is of course a reasonable suggestion. The substantiation of this view will, however, require something more in the way of evidence than that which can be inferred from uncertain statistics.

EDITORIAL NOTES.

How to Remain Young.

To drink of the waters of the fountain of youth is still, in the opinion of some, within range of possibility. A recent writer observes that man began in a gelatinous condition and ends in an osseous or bony one. He is soft in infancy; he is hard in old age. Aging is a process of ossification. After middle life has passed a more marked development of the ossific character takes place. The arteries become thickened with calcareous matter, and there is interference with circulation, upon which nutrition depends. The whole change from youth to age is one of steady accumulation of calcareous deposits in the system. Entire blockage of the functions of the body is a mere matter of time, and the refuse matter deposited by the blood through the system stops the delicate machinery we call Life. The blood contains compounds of lime, magnesia, and iron. In the blood itself are these earthy salts. In early life they are thrown off; in age they are not. Almost everything we eat contains these elements for destroying life. Earthy salts abound in the cereals, and bread itself, mistakenly called "the staff of life," is one of the most calcareous of edibles. Nitrogenous food also contains these elements, hence a diet made up of fruit is best for people advanced in years. The daily use of distilled water is, after middle life, one of the most important means of preventing secretions and derangements of health. Diluted phosphoric acid is one of the most powerful influences known to science for shielding the human system from the inconveniences of old age. Use it daily with distilled

water, and so retard the approach of senility. To retain perpetual youth avoid all foods rich in the earth's salts, use much fruit, especially juicy, uncooked apples, and take daily two or three tumblerfuls of distilled water with about fifteen drops of diluted phosphoric acid in each glassful. Thus will our days be longer in the land.

The Prince's Patella.

Dr. Lucas Championniere, the celebrated French surgeon, has published an article in the *Journal de Médecine et de Chirurgie Pratiques* on the "Fractured Patella of the Prince of Wales." He is very bitter in his criticism of the methods which have been employed, and cannot understand how Lord Lister could consent to the treatment employed when the distance between the fragments was more than two inches. It was to Lister that the first idea of treating a fracture by direct suture was due, and it is incredible that the Prince of Wales should not enjoy the benefit of this admirable treatment in the same degree as the least of his fellow subjects. Dr. Championniere has treated fifty-three cases of fractured patella in this way, and all have recovered perfect use of their joints and are able to do the hardest work. He considers that considerable risk comes from the diminished physical activity which proceeds from the treatment by immobilization, and he very heartily condemns the employment of this method.

The Philosophy of Play.

In a very interesting article by Dr. Luther Gulick, in Appleton's *Popular Science Monthly* for October, the genetic idea of play is elaborated. The body in reaching adult age must rehearse the history of the race. It starts from a single cell and ends in the most elaborate differentiation. Not only does the body rehearse the life of the race, but the mind also, and the plays of children are the history of these forgotten activities. Thus it is that hunting, fishing, sailing, swimming, mountain climbing and the like are all aspects of our past history, and are pleasurable because in the unconscious memory they are associated with the organism's past welfare. Play is therefore the ontogenetic rehearsal of the phylogenetic series, and the satisfaction that it gives proceeds from the gratification that comes from realizing anew these deep elemental racial functions.

The War Investigation.

The examination of witnesses by the investigating committee has proceeded with considerable vigor. It is as yet too early to predict the findings of this board of inquiry, but indications would certainly be that the bucket of whitewash it was thought the committee would splash over the whole affair has already changed in color, and may not do what is expected of it in the way of kalsomining. The medical evidence has been diversified, but the medical department will doubtless come out as well as any.

ITEMS AND NOTES.

A NEW hospital has been opened at Havana.

IN both Asia and Africa scarlet fever is extremely rare.

YELLOW FEVER in the South has practically come to an end.

DR. GEORGE W. HOLMES, an American physician, has been made personal physician to the Shah of Persia.

THE French Minister of Public Instruction has sent the decoration of officier d'academie to Dr. Wilson-Prevost, of New York.

NOTWITHSTANDING the prevalence of typhoid fever in Dawson City, American physicians have been debarred from practise there.

FOR the first time in many years there is no vacancy in the medical staff of the navy, the corps being now up to the authorized commissioned strength.

REPORTS of the Marine Hospital Service show that during the yellow-fever epidemic on the Gulf the total number of cases was 2272, of which 110 resulted fatally.

DURING a recent dinner given in London in honor of Virchow, a telegram was received addressed to him which read: "Get thee hence, vile vivisector; England spurns thee."

AN ordinance has been introduced in the City Council of Baltimore making it a misdemeanor with $5 fine for holding a public funeral in case of death from contagious disease.

THE annual meeting of the American Medico-Psychological Association will be held in the city of New York on Tuesday, Wednesday, Thursday, and Friday, May 23 to 26, 1899.

A COMMISSION has been sent out by the Russian Government, composed of forty physicians, to Samarkand, to institute measures looking to the protection of Russia from an invasion of the plague.

IN accordance with the request of the Government of Venezuela, and of the Committee on Organization, the third Pan-American Medical Congress is postponed to meet in Caracas in December, 1900.

A PHILADELPHIA correspondent of the *Evening Post* regards it as certain that Dr. John Guiteras is to resign his Philadelphia professorship and accept the chair of medicine in the University of Havana.

A RECENT despatch from Washington states that an order has been issued by the War Department directing the Surgeon-General to convene a board of medical officers to examine acting assistant surgeons now in the service as well as candidates for appointments.

REPEATING prescriptions causes much trouble in many sections of the country. In India few doctors hand the prescription to the patient. The document is sent directly to the druggist, who never thinks of refilling it for a customer unless so ordered by the prescriber.

THE *New York Tribune* reports the experience of a kind-hearted New York lady who sought hospital care for the sick infant of a poor family. After visiting several and trying to get it admitted she finally gave up in despair and called on a private practitioner, who responded promptly to the call.

AT Savannah, Ga., twenty-one acres of ground have been secured for the purpose of constructing an army hospital. When completed this will be the largest hospital maintained under the auspices of the Government. The estimated cost of the forty-nine buildings to be erected will be nearly $200,000.

IN Paris, as in other cities, the growth of the smoke nuisance has produced numerous calls for legislation looking to its abatement, and before proceeding to legislation, which might prove either ineffective or oppressive, the municipal authorities have decided to appoint a technical commission to investigate the entire subject.

THE *Denver News* reports an epidemic of nervous unrest among a large number of the people of that region. They describe the feeling as one of impending calamity. It has been variously explained as due to the excitement attending the preparations for their carnival, to the forest fires that are raging in the mountains, and to atmospheric conditions.

DR. FLORAS, of Constantinople, reports in the *Deutsche Medicinische Wochenschrift*, No. 28, 1898, a case of uncommon injury to the male urethra. An old man had forced his penis into a screw box. The member swelled to so great an extent that it was necessary to burst the iron case open with a chisel. Other cases of a like kind have been noticed and reports of them published.

A NEW YORK physician, Dr. Justin Herold, has written a book on the topic of Suicide. Dr. Herold says that from June 1, 1894, to August 1, 1898, there were 3431 people of all ages and conditions who committed suicide in that part of New York City now embraced by the boroughs of Manhattan and the Bronx. This does not include the unrecovered bodies of people who have drowned themselves.

A FEW weeks ago a young boy of ten years of age was brought into the Central Emergency Hospital, Washington, suffering from injuries resulting from the kick of a mule. It soon became evident that an abdominal operation was necessary. An incision being made, the abdominal cavity was found filled with blood, the result of a ruptured spleen. The organ was removed, and the boy made a good recovery.

THE University of Bologna, which has fallen so much from its ancient splendor and renown that it is now one of the most backward universities in Italy, chiefly owing to want of funds, will in all probability soon be in a position to recover some at least of its former glory. Professor Baccelli, the Minister of Public Instruction, has promised that during the coming session of the Italian Parliament he will introduce a bill to provide the necessary means for its rejuvenescence.

A SCIENTIST, says the *Scientific American*, looking for microbes says there are absolutely none on the Swiss mountains at an altitude of 2000 feet. Here is the place for the purity party and scaremongers who are forever horrifying the public with the dismal fear of microbes. They would have to take their supply with them. It is pleasing to observe that the microbe does not give himself lofty airs, but, as a fellow creature, comes down to our level and dwells cheerily in our midst.

A SHORT time ago a man in Vienna committed suicide by placing a large quantity of gunpowder in his mouth and then setting fire to it. When taken into hospital he was still conscious. He complained of severe pain in the left side, and asked for a drink, but could not swallow it. He died in twelve hours. At the autopsy contusions were found on the mucous surfaces of the tongue and mouth, lacerations of the throat, esophagus, and alveoli of the lungs, and interstitial emphysema of the latter.

THE animus of the homeopathic spirit is well illustrated by a writer in a recent issue of the *Pacific Coast Journal of Homœopathy*, who thus states the case: "There are cases, and the majority too (flatulent colic in the infant), in which the well-selected remedy is sufficient, but in my experience ever so often we run across a case which resists all our best directed efforts, and if we mean to let the baby have the benefit of homeopathy in its future ills, we must stop the pain, *or some old-school colleague will.*" To save the infant from the regular practitioner, the doctor prescribes in such cases 5 to 30 drops of tr. opii camph. (The italics are ours.)

MISS M. A. ELLIS recently contributed a paper on the human ear as a means of identification to the British Association for the Advancement of Science. She pointed out that the helix, or outer rim of the ear, and the general shape of the pinna, or whole outer ear, were the most useful for purposes of identification. Ears do not change shape after childhood, although they enlarge slightly after middle life. From the varieties of sixty-four pairs of ears, many belonging to individuals noted in art, science, and literature, printed from life by Miss Ellis, it has been found that the right and left of each pair of ears usually vary in shape.

HONESTY among quacks is such an unusual virtue that when it is discovered it certainly deserves to be noticed. A prospective customer applied to the London branch of a large pharmaceutical establishment for a copy of their price-list. In such cases, when an applicant's connection with the drug trade or medical profession cannot be traced, it is usual to ask for further par-

ticulars, and to such a request Mr. J. Boyd, of Dundee, Scotland, sent the following reply: "I beg most respectfully to acquaint you that I am a professional quack and vender of drugs, and do not *beleave* in qualification." If Mr. Boyd has so little belief in qualification, it is somewhat surprising he should have so much faith in drugs.

The first historical mention of plague, says the *Nineteenth Century*, is of an outbreak in Libya, in the third century before Christ. Again we read of bubonic plague in the great plague of Justinian in 542 A.D. In the fourteenth century the "black death" appeared in southern Italy, 1346–47, and spread over Europe, reaching England in 1348, where it appears to have remained for five or six years. A second epidemic occurred in 1361, and a third in 1368. In the fifteenth, sixteenth and seventeenth centuries outbreaks in Great Britain are recorded. The great plague of London in 1665, in which seventy thousand persons died, was the last English epidemic of plague. Plague occurred frequently in European countries up to 1841. In Russia it is endemic, sometimes of a mild type, but more often virulent. In India plague has probably existed since 1815, from time to time in a sporadic form and under various names in various parts of the country, with no reliable information as to mode of origin. In the autumn of 1896 a severe outbreak occurred in Bombay, which was preceded by an epidemic among rats of a fatal but hitherto unknown disease.

According to *Health*, a woman, eight and one-half months pregnant, had her hand crushed in machinery. For several days the hand was plunged for hours at a time in phenicated and disinfected hot water. Then a few whiffs of chloroform were given, and the toilet of the hand was accomplished with quantities of very hot water and solutions of sublimate and potassium permanganate, removing the loose projecting fragments of bone. Small squares of soft gauze impregnated with a polyantiseptic salve were carefully fitted into every crevice, covering the hand entirely, and the dressing was completed with a thick layer of cotton and a tight compressing bandage outside of all, to secure anastomosis of the vessels. She then left for a maternity, where she underwent a normal confinement. The embalming dressings were not touched for three weeks, and, when removed, under a thick layer of fetid, chocolate-colored fluid the wounded surface was found covered with healthy granulations, with the necrosed parts entirely eliminated. An autoplastic operation was performed a week later, which healed rapidly.

In Austria a "man" and "woman" are supposed to be capable of marrying and conducting a home of their own from the age of fourteen. In Germany the man must be at least eighteen years of age. In France the man must be eighteen and the woman fourteen; in Belgium the same ages. In Spain the intended husband must have passed his fourteenth year and the woman her twelfth. In Hungary, for Roman Catholics, the man must be fourteen years old and the woman twelve; for Protestants, the man must be eighteen and the woman fifteen. In Greece the man must have seen at least fourteen summers and the woman twelve. In Portugal a boy of fourteen is considered marriage-

able and a woman of twelve. In Russia and Saxony they are a little more sensible, and a youth must refrain from entering into matrimony till he can count eighteen years and the woman until she can count sixteen. In Switzerland men from the age of fourteen and women from the age of twelve are allowed to marry. In Turkey any youth and maiden who can walk properly and can understand the necessary religious service are allowed to be united for life.

A MOST ingenious quack, who was in the habit of "practising" with great success on board the boats running between Dover and Calais, has just been arrested in Paris. His method was as follows: He embarked on board the boat, and during the crossing a woman, his accomplice, pretended to be violently seasick, so bad, indeed, that she collected around her a group of sympathizing passengers. The swindler then turned up with a small bottle containing, as he affirmed, a drug of marvelous efficacy, which he offered to the sick lady. She having swallowed one mouthful declared herself miraculously restored. The bystanders never failed to ask the quack for his secret, and he, giving himself out as an inventor who was going to England to dispose of his patent, said that nevertheless for humanity's sake he would dispose of a few bottles of his medicine just before the boat arrived in port for the sum of 20 francs each. The silly people who bought them had thus no time to discover that the "drug" was only colored water, an unlucky discovery reserved for their return voyage. This chevalier d'industrie was arrested while walking in Paris, where he was recognized by one of his dupes.

IN a recent communication to the Berlin Ophthalmological Society, says the *British Medical Journal*, Professor Hirschberg stated that the large number of blind beggars seen by him in traveling through Spain some years ago led him to investigate the subject. The only official statistics which he could find—those of the Government census of 1860—gave the proportion of blind persons as only 11 per 10,000 of the population, a figure which appeared incredibly low in view of the numbers of blind persons seen in the streets and other public places. Further investigation showed that ever since the beginning of the present century travelers in Spain have noticed the large number of blind persons seen in that country. The official statistics have in fact been so carelessly collected that they are of no value. Diseases of the eye have for a long time been spreading to an alarming extent in the Peninsula. Hirschberg says that he has never seen such marked phthisis bulbi, or so many cases of it, as he met with usually in Spain. Even among well-dressed people it is, according to him, quite common to see individuals who have lost an eye, and persons of the well-to-do classes who have lost both eyes are by no means rare. At the Congress of Hygiene held at Madrid in the spring, Professor Hirschberg uttered a grave note of warning as to the prevalence of such preventable diseases as purulent ophthalmia neonatorum and trachoma, and urged in the interest of the Spanish people, as well as their neighbors, that the medical profession of Spain should pay more general attention to diseases of the eyes.

NEW PUBLICATIONS.

A CLINICAL MANUAL OF SKIN DISEASES.

It is fortunate that the author has "thought best to present the various diseases of the skin under an orderly system of classification instead of alphabetically, as heretofore." The other method is a tacit admission that the diseases bear but little relation to each other or that no scientific classification is possible, a conclusion that the advancement of dermatology in recent years does not justify. He now follows the classification adopted by most writers—that of Hebra, modified by Crocker—with a few variations.

It is to be regretted that the description of certain diseases is so meager; but the author's intention is, as he states, to avoid all unnecessary reference to disputed points. What he does state is in clear, unambiguous, concise language, and he has the faculty of giving the essence of the subject discussed. The handling of the points of differential diagnosis and of the treatment, for which purpose the book is mainly written, is admirable and practical.

Some of the illustrations are poor and can convey no adequate meaning to the reader. They scarcely do justice to the work of such a well known authority, especially in these days when dermato-photography has been brought to its present state of perfection.

The article on hypertrichosis is, as one would expect from Professor Hardaway's pen, instructive and useful.

As a whole, the manual is a worthy successor of the first edition and commends itself to the physician and the student. A. P. B.

A Clinical Manual of Skin Diseases. By W. A. Hardaway, A.M., M.D., Professor of Diseases of the Skin and Syphilis in the Missouri Medical College, St. Louis, etc. Second Edition, Revised and Enlarged. Philadelphia and New York: Lea Brothers & Co., 1898.

BUTLER'S MATERIA MEDICA.

Dr. Butler's work on materia medica has been sufficiently popular to demand a second edition in a very short space of time. The work is an exceedingly good one and its arrangement is systematic and scientific. The synthetic classification of drugs based upon therapeutic affinities has been adopted, the author believing this to be at once the most philosophical and rational method. The pharmaceutical section will be found specially complete. The new edition contains the result of several advances in pharmacology. Serum-therapy and the therapeutics of nuclein have received much attention. The work in its present form will undoubtedly continue to prove of value to the medical profession, and especially to the medical students of the United States, to whom the author dedicates his work.

A Text-book of Materia Medica, Therapeutics, and Pharmacology. By George Frank Butler, Ph.G., M.D. Second Edition, Revised. Philadelphia: W. B. Saunders, 1898.

STUDENTS' HISTOLOGY.

Miller's Histology, now in its third edition, is in many respects superior to many other text-books on histology now before the public. This edition has been carefully revised, and much matter has been added to it. The book is divided into three parts. The first part is entirely devoted to technique; the second to structural elements of the body; and the third to the organs. The cuts are from original drawings by the author.

Students' Histology. A Course of Normal Histology for Students and Practitioners of Medicine. By Maurice N. Miller, M.D., Late Director of the Department of Normal Histology in Loomis' Laboratory, University of the City of New York. Revised by Herbert U. Williams, M.D., Professor of Pathology and Bacteriology, Medical Department, University of Buffalo. Third Revised Edition, Profusely Illustrated. New York: William Wood & Company, 1898.

PRACTICAL DIAGNOSIS.

The appearance of a second edition of Hare's Practical Diagnosis is an event which might have been inferred as inevitable from the useful character of the work as indicated in the first edition. A discussion of the symptoms of disease, and to reason from these, to a diagnosis which

shall comprise their logical inclusion, is a development of *a posteriori* methods in medicine which cannot fail to be of the highest benefit to those who can appreciate its advantages. This work will meet the purposes of one intended as a manual of actual bedside diagnosis as well as any with which the profession is now familiar.

Practical Diagnosis. The Use of Symptoms in the Diagnosis of Disease. Third Edition, Revised and Enlarged. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia, etc. Illustrated with 204 Engravings and 13 Colored Plates. Philadelphia and New York: Lea Brothers & Co., 1898.

THE AMERICAN POCKET MEDICAL DICTIONARY.

This useful little book contains the pronunciation and definition of over 26,000 of the terms used in medicine and the kindred sciences. It also contains sixty tables of useful information. The work is exceedingly convenient in size and form, and admirably fulfils its avowed purpose of being a pocket dictionary.

American Pocket Medical Dictionary. Edited by W. A. Newman Dorland, A.M., M.D., Assistant Obstetrician to the Hospital of the University of Pennsylvania; Fellow of the American Academy of Medicine, etc. Containing the Pronunciation and Definition of over 26,000 of the Terms Used in Medicine and the Kindred Sciences, along with over 60 Extensive Tables. Philadelphia: W. B. Saunders, 1898.

A MANUAL OF OTOLOGY.

Dr. Bacon's little manual is an excellent introductory guide to the study of otology. He has very clearly pointed out the value of early recognizing aural trouble as a means of preventing mastoid and cerebral troubles. The chapter on deaf-mutism is an interesting contribution to that subject. The work is excellently illustrated, a large number of photoengravings being included. For a small practical manual this work will be found to fill the bill.

A Manual of Otology. By Gorham Bacon, A.B., M.D. With an Introductory Chapter by Clarence John Blake, M.D. 12mo.; pp. 398. With 110 Illustrations and a Colored Plate. Price, $2.00 net. Philadelphia and New York: Lea Brothers & Co., 1898.

HISTOLOGY: NORMAL AND MORBID.

This book combines both normal and morbid histology. More than half of the book is devoted to the former. It is profusely illustrated, with cuts that are excellent in character. As a text-book for students and practitioners it will rank high, its style being clear and concise.

Histology: Normal and Morbid. By Edward K. Dunham, Ph.B., M.D., Professor of General Pathology, Bacteriology and Hygiene in the University and Bellevue Hospital Medical College, New York. Illustrated with 363 Engravings. New York and Philadelphia: Lea Brothers & Co., 1898.

A LABORATORY GUIDE.

Witthaus' popular laboratory guide is again issued for the benefit of laboratory students. It is an excellent little manual for actual use in the chemical laboratory. Students will find that it is one to be borne in mind.

A Laboratory Guide in Urinalysis and Toxicology. By R. A. Witthaus, A.M., M.D. Fourth Edition. New York: William Wood & Company, 1898.

ESSENTIALS OF MATERIA MEDICA.

Saunders' popular quiz-compend on materia medica, by Dr. Henry Morris, is now in its fifth edition, a fact which sufficiently indicates the value in which it is held by students of this branch of medical science.

Saunders' Question-Compends, No. 7. Essentials of Materia Medica, Therapeutics, and Prescription Writing, Arranged in the Form of Questions and Answers Prepared Especially for Students of Medicine. By Henry Morris, M.D. Fifth Edition, Revised and Enlarged. Philadelphia: W. B. Saunders, 1898.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

The Treatment of Inoperable Sarcoma with the Mixed Toxins of Erysipelas and Bacillus Prodigiosus.

Coley (*Medical Record*, Aug. 27, 1898), in an article on the use of the mixed toxins of erysipelas and bacillus prodigiosus in cases of inoperable sarcoma, sums up his observations as follows:

1. A considerable number of inoperable sarcomata, the correctness of the diagnosis of which is beyond question, have entirely disappeared under this method of treatment.

2. A large proportion of these cases have remained free from recurrence more than three years after treatment—the period which has generally been accepted as of sufficient length to justify their being regarded as permanent cures.

3. Different varieties of sarcomata differ widely as regards the manner in which they are acted upon by the toxins. The results thus far show the treatment to be most successful in the spindle-celled variety, one-half of the spindle-celled sarcomata so far treated having disappeared. Round-celled sarcomata yield less readily, although a certain number have been successfully treated. No case of melanotic sarcoma has, up to the present time, shown more than slight improvement.

4. The action of the toxins upon sarcoma must be regarded as a rapidly progressing necrobiosis with fatty degeneration. This action is not the result of inflammation, nor does it resemble the destructive action of a local escharotic, but it is rather specific in character, exerting a direct influence upon the tumor cells.

5. The specific action is further confirmed by the fact that several tumors have entirely disappeared when the injections were made subcutaneously remote from the tumor.

6. This method of treatment is attended with a certain amount of risk, unless certain precautions are taken. The chief dangers to be guarded against are: (1) Collapse from too large a dose of the toxins or from injections into a very vascular tumor; (2) pyemia from insufficient precautions as regards asepsis, especially in cases in which there is a granulating or sloughing surface. (That the risks are small is shown by the fact that in upward of two hundred cases treated personally death was caused by the injections in but two, one of which was so nearly moribund that no treatment should have been begun.)

7. The use of small doses of the toxins for a short period after primary operation, as a prophylactic measure, theoretically has much to recommend it, and if proper precautions be observed the treatment should be practically free from risk.

8. The action of the toxins of erysipelas upon sarcoma, as shown by clinical results, is in strict accord with the known action of the living streptococcus of erysipelas; therefore the method has a perfectly logical and scientific basis.

Recovery After Wound of the Heart.

According to *The Lancet* of September 17, 1898, Dr. G. Parlavecchio, at a recent meeting of the Societa Lancisiana, held in Rome on July 9, described a case of punctured wound of the heart on which he had operated successfully. On the night of July 7 a man twenty years of age was stabbed with a knife in the fifth intercostal space on the left side in the parasternal line (the vertical line midway between the border of the sternum and the nipple). He afterwards walked a distance of more than 200 meters (218 yards) to the Hospital of San Giacomo. Five hours later he was found to be suffering from pneumothorax on the left side with extensive effusion of blood into the pleura. The area of cardiac dulness was increased; at the apex the heart sounds were confused, and at the base they seemed to be distant. The pulse was irregular, intermittent, and small.

Dr. Parlavecchio suspected a wound of the heart, or at least a wound of the pericardium, but was not able to operate until eight hours after the injury. Chloroform having been given, a free incision was made in the fifth intercostal space and much blood escaped on opening the pleura. After resection of the fifth rib a wound admitting two fingers was discovered in the pericardium and was enlarged so as to expose the heart, in which there was near the apex a V-shaped wound, 3½ centimeters (1½ inches) long, penetrating obliquely into the left ventricle and intermittently discharging blood. It was closed with four deeply applied separate silk sutures, after which there was no further hemorrhage. The pericardium and the intercostal wound were then sutured, the whole operation lasting forty minutes. The V-shape of the wound in the heart was probably due to its movement during the infliction of the wound. The patient's survival for the eight hours preceding the operation may be explained by occlusion of the wound by clot, which was displaced during the struggling occasioned by the chloroform. The subsequent history of the case was quite uneventful, and on August 14 the patient insisted on leaving the hospital. It is added that this is the third case in which suture of a wound of the heart has been followed by recovery.

Disinfection of Hands.

This subject, which is of such great importance in clinical surgery, has been carefully studied by Weir (*Boston Medical and Surgical Journal*), whose investigations led him to the following conclusions:

1. That the solutions of corrosive sublimate are unreliable.

2. That such disinfection is far best applied, and in the order named, by the use of nascent chlorine, alcohol, or potassium permanganate.

3. That chlorine is satisfactorily evolved by the conjoined use of moistened chemical chlorinated lime and crystallized sodium carbonate.

4. That of these three procedures, the chlorine treatment is least hurtful to the hands, alcohol the most trying.

The author has devised a simple, easy and inexpensive yet efficient method of obtaining the sterilization by nascent chlorine. After the usual scrubbing with soap and water, and the use of green soap, and cleansing the periungual

spaces, one or more large crystals of carbonate of sodium (washing soda) are taken in one hand and covered with about a tablespoonful of bleaching powder (chlorinated lime), and enough water is added to make a thin paste, which at first feels warm and from which fresh chlorine gas comes. This is rubbed for two or three minutes over the hands, nails and forearms until a creamy paste is formed, or until the sodic crystals impart a cool sensation, or until the rough grains of bleaching powder have mostly disappeared, when the hands are washed in sterile water.

Some Valuable Surgical Hints.

The *International Journal of Surgery* for September, 1898, gives the following valuable hints:

Wherever iodoform or any of the iodine compounds is applied as a dressing, the part should be inspected the next day, owing to the possibility of the occurrence of dermatitis. When the latter occurs it often gives rise to heightened temperature, and might lead to the belief that wound infection had taken place.

In the absence of organic disease, the ability of a patient to stand severe surgical operations depends greatly upon the state of his blood-vessels. Hardened arteries in middle age place the patient, for surgical purposes, in the class of old men. "A man is as old as his arteries."

It is well known that some injuries are especially likely to be followed by shock. In the presence of such injuries, even if the patient shows no shock, take every precaution against a condition which is apt to arise at any moment.

Statistics appear to show that chloroform is less dangerous in warm than in cold countries. It is therefore always advisable, whenever for any reason chloroform is to be preferred to other anesthetics, to see that the operating room has a high temperature.

Infection in deep tissues often gives rise to no other symptom than deep pain, and sometimes inability to move the part. Wherever there is deep pain with rise of temperature inspect the nearest lymphatic glands.

Bottini's Operation for Enlarged Prostate.

Morton, in the *Medical Record* of September 17, 1898, reports five cases of enlarged prostate operated on by the Bottini method. He says that all the operations were done with the usual three cuts: the posterior, three centimeters long; lateral and anterior, two centimeters long. Cocaine was used as an anesthetic.

The result of the operation was in every case to reduce the frequency of urination and to remove the obstruction offered by the prostate, so that the patients could entirely and completely evacuate their bladders. In each case this was demonstrated by introducing a catheter and finding only from three to eight drachms of residual urine, and the patients were able to dispense with the catheter, which they had formerly depended upon to empty their bladders.

Since the operations the urine in each case is propelled in a thick, broad stream, whereas before it was feeble and trickling, thus showing that the

obstruction which formerly existed at the outlet of the bladder has been removed.

In conclusion the author says that he believes Bottini's operation will in a great number of cases fill all the indications, and will take the place of the operations for prostatic hypertrophy which are now in vogue, and which are mutilating in character, unsatisfactory in results, and attended with a high rate of mortality.

MEDICINE.

Hysteria of a Cat and of a Canary Bird.

Hygier (*Neurologisches Centralblatt*, No. 13, 1898) reports the case of a cat that a dog had bitten in the back, and since it was bitten the cat had used its fore paws only, allowing the trunk of its body and its hind quarters to drag after it. Five weeks after the injury investigation proved that the hind paws and the end part of the trunk of the cat had been entirely anesthetized. The tail also was paralyzed. One morning the servant-girl threw the cat from the first story window onto the pavement below, whereupon, to the surprise of every one present, the astonished animal ran quickly away on all fours, and from that moment remained cured of its posterior paraplegia.

Upon another occasion a cat sprang upon a canary, with the result that the bird and its cage were torn from the wall and fell upon the floor. Although the cat had not succeeded in hurting the bird, it lay rigid in its cage, but when recovered it behaved quite normally, except that it suffered from absolute aphonia, which lasted for six and one-half weeks, after the lapse of which time, however, it commenced to sing again without giving the slightest warning.

These two facts prove the *a priori* apparent fact that in animals endowed with intelligence, as also in the human being, physical impressions are capable of exercising acute reaction upon the somatic functions and occasionally of producing hysteria phenomena.

The Dissemination of the Bubonic Plague.

According to a recent address, given by Prof. R. Koch before the German Society for Public Hygiene, there are at the present time four different districts in which this plague is endemic, and which may be accepted as the proper distributing points for this disease. Such a one is Mesopotamia, whence, perhaps, other entirely different epidemics have been distributed at an earlier date. A second seat for this disease is to be found in the mountainous districts of Thibet, and to this point may be traced the origin of the Chinese epidemic, while the Indian plague may also have originated here. On the Arabian coast, south of Mecca, exists a third disseminating point for the bubonic plague; this third center however is no longer worthy of interest, except on account of the Mecca pilgrimages, because no epidemic has latterly started there. Besides the above mentioned, however, a fourth, and formerly quite unknown, center from which the plague has doubtless been disseminated exists upon the north coast of Africa, and to this point later epidemics may also be traced. Koch became cognizant of an epidemic on the Kisiba of Victoria

Nyanza, whither the disease—called by the natives "Lobenga"—had been brought from the northern-lying English Uganda eight years previous. Koch is prepared to prove that the "Lobenga" epidemic is in every respect identical with the bubonic plague of China and India. In a few years, and after the completion of the projected English railroad, which will connect Victoria Nyanza with the coast, and thereby bring Uganda into connection with the trade of the world, Uganda may then, as a plague center, become of the most fatal importance.—*Munchener Medicinische Wochenschrift*, 1898, No. 31.

THERAPEUTICS.

The Kineto-Therapeutic Bath.

Von Leyden and Goldschieder (*Zeitschrift für Diatetische und Physikalische Therapie*, vol. i) say that an important result of the therapeutic bath is due to the water flow. The intercession of this physical quality is particularly advocated in cases of paresis and muscular atrophy of the lower extremities, and also in cases of painful arthritis. A patient whose leg muscles are weakened is often enabled to move his legs when in the bath, though he might find this movement utterly impossible when in bed. In similar cases the flow of water into the bath has a very direct effect upon the patient and his immediate surroundings. The water-bath proves of extraordinary value in all cases where the lower extremities are affected. By such exercise not only do the muscles become strengthened, but stiffness and passive contractions are avoided; and further, the desire to move, stimulated by these exercises, acts in a physical manner upon the patient as an incentive to further movement. With regard to technical execution of water gymnastics, particular care should be taken that the water be as deep as possible to afford more scope to the patient's legs; if the patient be weak he must be supported during the bath. The temperature of the water should be kept at from 28° to 32° R., and the duration of the immersion should be increased by degrees from thirty minutes to one hour. The sense of weight suffered by the immersed limbs may be greatly decreased by the addition of salt. It is needless to remark that in cases of actual lameness the water-cure is practically without effect. In cases of paresis the neurotic is the most satisfactory form of treatment.

Carbon Monoxide Poisoning.

The desirability of finding an agent that shall exert an immediate oxidizing influence on the blood amounts to a prime necessity in many cases of carbon monoxide poisoning. The extremely stable compound made with hemoglobin by the poison renders artificial respiration often of little use. The transfusion of blood, or the injection of sterilized salt solution 0.7 per cent., has hitherto been regarded as the most promising line of treatment. Latterly, the injection of hydrogen peroxide (Marchand) in the veins and by the rectum has been advocated, and satisfactory results have been recorded.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,

Microscopist to Harper Hospital, Detroit.

The Phenomenon of Agglutination and its Connection with Immunity.

Frumpp, discussing this subject in the *Archiv für Hygiene*, vol. xxxiii, Nos. 1 and 2, says the action of antitoxins has been mentioned and explained by several authors in as many different ways. Pfeiffer attributes to them a specific bactericide action—*i.e.*, an action which kills off the bacteria. Frumpp, on the other hand, accepts only one action as harmful to bacteria. The author's experiment on methods for deciding a relation between immunity and agglutination has led to the following results: Cholera and typhus immune serums have a harmful effect outside the animal body upon its respective bacteria. This effect is specific and nearly proportional to the agglutinating power of a serum. An agglutination and accumulation may be produced by cholera vibrios, as well as by other agglutinous substances. The actual mechanical momentum of the agglutination exercises on the bacteria have no effect upon their viability; the antibacterial working of the agglutinant appears to check the increase of the bacteria. This agglutination appears also in cholera and typhus bacilli of animals, and shows itself in the form of immobility and swelling of the bacteria; frequently the typical accumulation is shown. In consequence of these results gained, the phenomenon of agglutination appears as a visible sign of a stipulated injury to the bacteria cellula, which, however, must be understood as transient and not immediately destructive to viability. In this condition the bacteria cell is far less capable of resisting the influence of the active alexitoxine in the normal serum sanguinis, and this is also the cause for the antibacterial protective action of the existence of immunity of both bacterial infections. Pfeiffer's doctrine on specific bactericide substances does not appear compatible with these results, while the facts already cited agree absolutely with M. Gruber's conception of the idea.

Smegma Bacilli in Sputum.

Pappenheim, in the *Berliner Klinische Wochenschrift*, No. 37, 1898, reports a case in which the sputum contained bacilli supposed to be tubercle bacilli. The patient died of edema of the lungs, and the autopsy failed to reveal any signs of tuberculosis whatever, but bacilli were found in great quantities. Cultures of these bacilli could not be made, nor could they be found in stained sections. The bacilli were rapidly decolorized by alcohol, and the conclusion was that they were smegma bacilli or closely related to them. Such a case is of great importance, as very grave mistakes, under similar conditions, might arise in cases of suspected tuberculosis. For the differentiation by staining of the smegma from the tubercle bacilli, rosolic acid is recommended as the best decolorizing agent. The specimen is first stained with carbol fuchsin, then counterstained in the rosolic acid methylene blue solution (rosolic acid 1 part, absolute alcohol 100 parts, methylene blue to saturation; add finally glycerin

20 parts). This solution decolorizes and counterstains; by applying the solution to the cover-glass and allowing it to slowly run off, repeating three to five times, the tubercle bacilli will be stained a beautiful red, while the smegma bacilli, other bacteria and other constituents will always be stained blue. This method only takes three minutes and has obviously many advantages over other methods.

The Presence of Ammonia in the Blood of Healthy and Unhealthy Individuals.

A certain quantity of blood, from 50 to 100 cubic centimeters, taken from the median cephalic vein, was subjected to chemical examination, the result of which was summed up as follows: Normal venous human blood contains free ammonia in quantities of from .06 to 1.3 milligrammes in 100 cubic centimeters, occasionally 0.9 milligramme. This ammonia in the blood is liable to extreme fluctuation in cases of fever; often it may increase to twice its normal amount, or in some few cases suffer considerable diminution. No connection could be proven between presence of ammonia in the blood and fever heat. In cases of coma from yellow atrophy of the liver, the amount of ammonia in the blood may be increased.—*Zeitschrift für Klinische Medicin*, vol. xxxv, Books 5 and 6.

Tuberculosis of Birds and Mammals.

At the conclusion of a long series of experiments undertaken by Pantini (*Monatsschrift für Ohrenheilkunde*) to determine the relation between the tuberculosis of birds and that of mammals, and reported to the Italian Society of Internal Medicine, the investigator came to the decision that the pathogenic agent in tuberculosis was the same. He believed, however, that the same germ manifests different varieties which can change their nature somewhat in varying surroundings, following the same biological law as has been determined for the streptococcus, diplococcus, and certain other pathogenic germs.

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,

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A Photographer's Skin Disease.

Dr. Leopold Freund has called attention, in the *British Medical Journal* of September 8, 1898, to an affection of the skin of the fingers which in recent years he had observed in photographers. In a well marked case the flexor surface of all the fingers of both hands was the seat of a diffuse dark-blue redness, which disappeared under the pressure of the fingers. The skin felt hard and thickened, and the fingers looked larger than normal. The appearance of the skin was as if the hands were lacquered, and both hands felt cold and dry to the touch. This change extended as far as the wrists; the backs of the hands were slightly affected. The nails and the secretion of sweat were

not affected. In the early stage of this affection there is a feeling of numbness and anesthesia; later the fingers become stiff and are the seat of a disagreeable feeling of tension. There is no itching or pain. The cause of this peculiar affection is believed to be metol, a sulphate of methyl-para-amidophenol, which is now largely used for developing negatives. The condition is similar to what has been described as local asphyxia of the skin, and Dr. Freund emphasizes the peculiar varnished-looking appearance of the skin, which is produced by contact with this substance. Recovery takes place spontaneously in two or three weeks, when the workmen abstain from touching metol, the cure being hastened by the use of the ordinary ointments and plasters employed for an inflammatory condition of the skin.

Hypertrichosis Treated by the Roentgen Rays.

In the *Wiener Medizinische Wochenschrift* (Nos. 22 and 24, 1898) Drs. Schiff and Freund give a description of the successful removal of superfluous hairs by the aid of the Roentgen rays. To avoid inflammation, a current not to exceed two amperes is used; the source of the light is placed twenty to twenty-five centimeters from the surface, the time of action being limited to ten minutes. In their seven cases of epilation, the best result was obtained after seventeen to thirty sittings. From one to two days before the hair fell out the skin showed a brownish discoloration, which disappeared in three to four days after the hair had fallen out. In some of the brunettes the hair became, before it fell out, snow-white. They confirm the observation that the effect of the *x*-rays is cumulative. In forty cases of hypertrichosis treated by the *x*-rays, Dr. Joseph Jutassy reports a number in whom there had been no regrowth of hair after a year.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
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Mastoiditis; When to Operate and How.

At the annual meeting of the Mississippi Medical Association, held at Nashville, Tenn., October 11, 12, 13, and 14, 1898, Dr. Andrew Timberman, of Columbus, O., said that to know when to operate one must be able to exclude the diseases that are often accompanied by inflammatory conditions over the mastoid, without actual involvement of the bone, and which quickly recede when the primary disease is properly combated. Cases of mastoiditis are divisible into two classes—the first comprising those complicating acute aural disease, the second those complicating chronic aural affections. Operative measures should be instituted: (1) to preserve the function of hearing, as well as to prevent a fatal issue; (2) earlier in mastoiditis due to scarlet fever, diphtheria, and the worst cases of influenza, than when due to "colds," measles, typhoid fever, etc.; (3) in the acute cases of mild infection, when subsidence does not occur within at most eight days (Schwartze)—a shorter period is

safer in the presence of virulent infection; (4) in cases of recurrent mastoiditis due to any cause; (5) in those of mastoiditis complicating chronic suppurative otitis; (6) in acute cases attended with drooping of the lining membrane of the superior posterior wall of the external auditory canal, carrying with it Shrapnell's membrane; (7) in chronic cases when at the same place a crater-like opening leads to the epitympanic recess and entrance into the antrum, even though in neither case symptoms immediately menacing life be present. The author favors the typical or original Schwartze method of opening the mastoid antrum. Its success in given conditions justifies its application; its failure in given conditions has resulted in a more perfect procedure styled the Schwartze-Stacke, or radical, operation. Dr. Coulter, of Chicago, maintains that the general practitioner should not treat cases of mastoiditis in which the symptoms are well defined, and no one who has not had considerable surgical experience should attempt the Schwartze operation. Reynolds, of Louisville, insisted on the importance of constitutional medication in the stage of invasion in cases of mastoiditis, saying that an ounce of prevention at this time is most preciously bestowed.

Hallucinations of Sight in Affections of the Visual Organ.

At the recent meeting of the Ophthalmological Society at Heidelberg, Uhthoff, of Breslau, reported cases in which diseases of the eye called forth hallucinations without any disturbance of consciousness. A female teacher with bilateral choroiditis and foliage within the defect of the visual field, and a patient with opacities of the vitreous, saw birds, angels, etc. In optico-neuritic atrophy, where eccentric portions of the visual field were still intact, hallucinations were likewise seen within the defect of the visual field centrally before the eye. In two observations of hallucinations in hemianopsia, the latter were limited to the affected half and did not transgress the middle line. In the discussion Hirschberg (Berlin) called to mind that von Graefe had performed neurotomy on account of hallucinations with bilateral shrinking of the eyeball. Dorr mentioned a case as proof that hallucinations could be called forth by peripheral disturbances, in which the patient was cured of the hallucinations by enucleation of the affected eye after a prolonged sojourn in an insane asylum.

Myopia.

Widmark, on Myopia, claims in his second treatise that in Denmark and Sweden women suffer more than men, if not from absolute myopia, then at least from severer eye maladies, and especially those in which are complications. This is chiefly the case amongst women of the lower classes, who work under unfavorable hygienic conditions, the all-important of these being insufficient light. The writer sets forward the very appropriate question as to whether the special study of the female individual does not demand consideration, if only on this account.—*Munchener Medicinische Wochenschrift*, 1898, No. 38.

THE MEDICAL AGE

VOL. XVI. DETROIT, DECEMBER 10, 1898. No. 23.

ORIGINAL CONTRIBUTIONS.

DIETETIC POINTS.*

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The following dietetic points are presented in the hope that they may elicit discussion and prove suggestive; whether right or wrong they are, at least, the result of daily observation in actual practise.

The first point which I wish to bring up is one which I esteem to be a very common and damaging fallacy, to wit, that fruit should be eaten for breakfast. This pernicious habit is almost universally accepted by the laity in city life and largely inculcated by the medical profession. Our country cousins gather around the fire of an evening and bring out the apples, the walnuts, and hickory-nuts, which they proceed to devour in a leisurely manner while discussing crops or finance. Then they retire to a cold bed, and their stomachs spend a busy night in digesting these indigestibles. But in town it is the proper thing to place various fruits on the table for breakfast. The unwise victim of the mode, whose circulatory apparatus is just getting up steam for the day's work, whose digestive power is at its lowest ebb, hastily devours the kind of food which is specially difficult of digestion, yet which contains the least possible quantity of actual food value—raw fruits—and leaves them to be digested while all his energies are being devoted to business and as little as possible to digestion. What is raw fruit? Woody fiber holding in its spongy pores a quantity of flavored juice; it has hardly any nutritive value. Notice the hogs in the orchard. They crunch apples all day long and can be heard crunching them in the darkness of the night, but the hogs grow slowly. When the farmer wants pork he feeds, not apples, but corn.

On this woody fiber and tart juice our city man begins his day's work. His cup of coffee starts up his circulatory apparatus, but, as furnishing power for his day's work, the morning fruit is of no use; and having filled up on fruits, he eats less than he should of real foodstuffs.

It is notorious that the general rule of all of us is a comparatively small appetite for breakfast. This is merely the expression of the fact that in the early morning it is ebb-tide with us—the circulation has not yet grown active,

* Read before the Wayne County Medical Society.

digestion is sluggish, ideation even is slow. How many brilliant after-dinner speakers can scintillate at 8 A.M.? And now at a time when the digestive function is at its lowest ebb we set it at its hardest and most useless task—raw fruit.

Let us cease to rail at a well constructed pie and exercise common sense in regard to breakfast use of fruits. Who would think of adding walnuts and hickory-nuts to the breakfast *menu?* Our country cousins group the raw fruits, nuts and cheese as indigestibles, and eat them at the best time, in the evening. Our country cousins have considerable native sense.

I am convinced that our friends, the stomach specialists, would have fewer stomachs to wash if the morning fruits were left out. This brings me to raw fruits and vegetables.

The king of the cannibal islands was buttonholed, or at any rate detained, by a long-winded questioner. At length, seeing a missionary in the distance, he said, "You really must excuse me, for I must go to my Browning club." From which it is evident that even the most barbarous people cook their food before eating it. The prevalence of this custom is the natural outcome of a physiological law. Cooked food is much more easily digested than uncooked; all races have learned it except some physicians and Americans.

Our patients fairly revel in our fruits, tomatoes, and melons; and again the dyspeptic is warned against pie.

When strawberry-time comes around business picks up. The dyspeptic is sure to turn up numerously, and as the season progresses the tomato, the cucumber, the melon, the apple, and last of all the grape, keep the procession steadily going. Stomachs which in winter are nicely contracted and attentive to business, in summer are splashing with gas and sour waters like half-filled water-bags. The dilated stomach is common, to say nothing of intestinal storms. In plain terms, it takes an admirable digestion to digest uncooked food, and the man or woman who has not a fine reserve of digestive power brings on indigestion by the use of uncooked food.

I know that one runs some risk in attacking uncooked food as I am doing, but the average city man of sedentary life runs a greater risk in attacking uncooked food on his plate. I incur the risk of being called a crank, but he incurs the risk of being a cranky, cramped dyspeptic.

Oddly enough, the moment a patient has a bad vomiting spell, or attack of cholera morbus or colic, he searches, as probable cause, for some raw food or other. He knows then that uncooked foods are apt to be mischievous, but at all other times he quotes medical authorities to prove that it is so very wholesome to eat lots of fruit. The fact is, it tastes so good that he wants to find medical authority for doing what he, in his inner consciousness, knows is a somewhat risky thing. And medical men, being subject to human frailty, furnish the desired authority. It would be better, and I believe a valuable service, if we informed the public and our patients thus: If you have perfect digestion you can eat all kinds of things which are hard of digestion and thrive, but you should remember when eating uncooked foods that they rank as things hard to digest, and the moment you find digestion failing cut off the use of uncooked foods as you would cut off pork, cabbage, nuts, or cheese.

Again, I believe that the above rule is of more value to our dyspeptic patients than many stomach-tubes. I know that it takes nerve, during the time when our fine fruits are so tempting and abundant, to order a dyspeptic patient to put away the luscious strawberry or raspberry, to look at a fine watermelon and pass by on the other side; but physiology is physiology and will not be evaded. The real trouble is that the palate is a poor judge of physiology—this, of course, is part of a larger truth that the lusts of the flesh are excellent servants but ruinous masters. Still we and our patients go stumbling along, taking it for granted that the calls of Nature are to be relied upon. Now Nature, as we are pleased to personify her, is a very lazy goddess. She is frightfully wasteful and careless of individuals. Here is an instance. It is taken for granted that thirst is the natural call for drink, and most people who drink when they are thirsty feel that they have done their whole physiological duty. Not to wander off on these inviting by-paths for philosophizing which the idea "thirst" excites in the mind of the club-man or the frequenter of the Bowery, but limiting ourselves to thirst for water, it requires little observation to show that city men, and particularly city women, who only drink what thirst calls for are very generally going through a gradual process of desiccation. I had an old aunt who prided herself that she *never* drank water—boasted of it. The old lady was visibly desiccated, and had it not been that death intervened it was clear to the observer that she would finally have blown away in powder. Dry as she was, her sense of thirst had no relation to the physiological needs of her organs.

Our city men and women, or many of them, go along with barely enough water to keep from drying up. Then they become addicted to pills and tonics, massage, electricity, and Christian science—dying for water while the hose is playing on the front lawn. The fact is, drinking is a lost art. So wholly unreliable is the palate that lots of people gorge their stomachs with juicy fruits because their sense of thirst is not clever enough to tell them to drink pure water; they can't rely on it at all. Our patients need to be ordered to drink systematically not what they want but what they need.

The same thing is beautifully illustrated in the matter of respiration. Every one will resent the imputation that he doesn't breathe enough. Don't breathe enough! Yet the steady run of people who are not engaged at hard labor go along taking in just enough oxygen to keep them alive, but no more. Here are food products and body tissues to be oxidized. We fill the furnace full of excellent combustibles, and then open the damper just enough so that the fire will not go out. The man doesn't die, but grows bilious or gouty or anemic or tubercular, always going about with his blood and his tissues saturated with imperfectly oxidized products. Then he calls for drugs, and we give them to him.

We send patients hundreds of miles to get the glorious mountain air. Mountain air is just like Wayne county air. What is the difference? The invalid sent to the mountains leaves his boarding-house. The road goes either down hill or up; whichever way he goes he is presently climbing a hill, begins to pump into his hitherto sluggish lungs a lot of air, just as good as Wayne county air, but lots of it. Now his tissue and food products are all burned up.

The hopeless, cranky neurasthenic, the chronic dyspeptic or rheumatic, the tubercular wreck, one and all begin to sound the praises of the glorious mountain air—always provided that they get out and walk, and so climb and pump. Some, who stay indoors or sit on the porch all the time, feel that they wasted their money in going after mountain air. Of course they didn't breathe enough. Now why not pump in Wayne county air, not just as much as we want, but as much as we need?

Our athletic boys and girls don't miss the mountain air. Many a chronic invalid could achieve mountain air effects by a fifteen-minute controversy with an active punch-bag. Anything will do. Patients whose dignity revolts at the punch-bag can stand up and, every time the hour strikes, voluntarily fill the lungs to the full with a dozen long breaths of home air. When patients who are habitually economical in breathing do this they are apt to become dizzy at first—oxygen intoxication. The effects are often fine. The wheel has been a godsend in causing forced breathing. But let us not lose sight of the fact that many of our patients live habitually on short rations of oxygen and need to be fed up. Personal experience leads me to believe that the only way to get some of them to pump in air is to sell Wayne county air to them in steel cylinders at a cost of perhaps a dollar a day. Otherwise air, being cheap and abundant, is esteemed of no value. We all are familiar with this in the mineral water line.

So far we have been dealing with lay errors, for the most part. The professional sins in these matters have been the minor sins of omission. There are, however, more grievous sins of commission on the part of medical men themselves. One of these is the wide-spread and pernicious habit of filling up typhoid fever patients with milk.

I hardly know how to begin. The initial error is in considering milk as a liquid food. While it does seem to have the form of liquid, yet as a food it is not liquid but solid. Bread and butter, mashed potatoes, nay, even pumpkin pie — none of these are capable of filling the small intestine with such immense, dense, indigestible boluses of substance as result from milk. Even uncooked fruits could never pack the colon with such an impregnable, unassailable mass as we sometimes are obliged to scoop out from such of our typhoid fever patients as have survived the earlier dangers of a milk diet. No! milk is not a liquid diet. It is a deceptive solid. Furthermore, it is a fine culture medium and by no means fastidious in its preferences for germs. You keep your ice-box in prime order, the milk is put in sweet, and a passing thunderstorm turns out a milk so full of bacteria that it is marvelous how rapidly they have propagated. Evidently the culture medium is an admirable one. As for the typhoid bacillus, it is notorious that milk is a good vehicle. Outbreaks of typhoid set us nowadays to following the milkman's route. Such is milk.

Now notice what we do and are taught to do.

The unfortunate victim of typhoid usually has a period during which he tries to keep at work or hangs about the house; his head aches; he feels dull and miserable; has no appetite and *does not eat;* has some fever, but not much yet. This goes on for six to ten days. Then he calls the doctor. Now

notice what happens. The doctor puts him to bed, gives him some medicine, more or less, fortunately nowadays less, and begins to fill up the patient with milk. Thereupon the fever which has been hanging around a low point begins to jump up—climbs up a degree by day, hangs there all night, climbs another degree the next day, and soon reaches 103° or 104° or possibly more. The doctor knows that the patient has no digestive power, but that does not deter him from pouring in liquid casein, which presently becomes solid casein —there being no digestive activity, the clots of milk pass along through the small intestine to form a beautiful culture ground for the typhoid or other intestinal bacilli.

A woman after childbirth has retained in the uterus a single little clot of blood, which becomes the culture medium for streptococci—from a clot no bigger than a marble are absorbed toxins which will produce all the terrors of puerperal fever. Is it any wonder that the bacteria in the clots of two quarts of undigested milk keep up a supply of toxins which soon poisons all the tissues of all the organs of the body? Need we wonder at the delirium, the stupor?

We doctors are like other people, afraid of bogies. One dreadful bogy is the fear of starvation. Now it is exceedingly difficult to starve to death. Dr. Tanner, with all his notoriety, did mankind a great service. He demonstrated that a man can live forty days without food. I myself knew a fourteen year-old idiot who contrived to live for fourteen days without either food or drink. Yet driven on by this false fear of starvation we persist in filling the alimentary canal with milk. We know it is not digested; it is just as good a culture medium inside as it is outside of the body; it passes over the ulcerated glands in hard balls, well calculated to start a hemorrhage either by contact or by the very considerable peristaltic action needed to shove it along. Most of it is not assimilated, and it is very questionable whether such part as is assimilated does not do far more harm than good. It is at least, *a priori*, reasonable to believe that the fires of the fever would be exhausted sooner were they not fed by new material. In short, our typhoid fever patients are endangered by milk and would do better on pure water. They burn up everything combustible as it is, and come out exhausted, wasted, starved; but they come out starved even when the colon is packed with casein. Now they would starve no more on pure water, and the fever would be shorter and less intense.

That this is not pure speculation let me refer you to the best practise of those physicians who are familiar with yellow fever. They inculcate rigid starvation. There seems good ground for believing that the same rule applies to typhoid.

By getting the alimentary canal empty we guarantee that we are not generating any unnecessary toxins. It must be remembered that the danger of secondary intoxication from the intestinal contents applies not only to the propagation of typhoid bacilli in the intestinal contents, but of the various other toxic bacilli. It surely is good sense to render the intestinal contents aseptic, but it is much more certain if we reduce these contents to the smallest possible amount. By giving abundance of water we keep up the volume of the blood and facilitate all the organic processes; instead of overwhelming the

protoplasm of the cells of brain, liver, kidneys, and heart with toxic substances absorbed from the bowels, we enable the protoplasm to eliminate waste products.

Led by these considerations I have learned, in my own practise, to depend upon pure water, to wholly discard milk. In view of the prejudice which the laity have imbibed from long-standing medical practise it is impossible to carry out the pure-water plan in plain view. By giving some of the well advertised concentrated food juices whose nutritive value is little enough in reality, but which is esteemed to be great, I find that the starvation plan can be carried on without objection. The results have been satisfactory to myself. I am, however, well aware that my own experience is far too limited to make it safe to deduce any rule, but at least I can offer the suggestion.

Those who wish to follow up this subject can find some excellent material in Bouchard's little work on autointoxication. While Bouchard is an extremist, he is stimulating and suggestive.

I trust that these dietetic points will be accepted for what they are intended to be, as suggestions, not dogmas.

THE PRESENT STATUS OF THE VARIOUS TREATMENTS OF TYPHOID FEVER.

BY J. HOWE ADAMS, M.D., OVERBROOK, PA.

There has been a great opportunity in Philadelphia in the past few years to study the results of treatment of the various plans of managing typhoid fever, both because of the number of cases occurring and because the different treatments have had various champions. The time has now come when these various data have begun to crystallize and definite conclusions can be formed.

In the first place I would state that it has been a remarkable fact that in one section of Philadelphia there has not only been no death from typhoid fever in at least three years, but also that there has been reported no case from this district to the Board of Health. In other words, while there has been a large number of cases of typhoid fever in town, there has not been one case in one section for three years. This is undoubtedly due to the fact that this region is high above the rest of the city, well drained and lighted, and, what is more vital, possesses an independent water-supply which is pure in composition. Still it seems remarkable that some proportion of the population should not have carried the disease here, from infection obtained elsewhere, for a large part of the local population spend their days in the city proper. Such, however, is the record of Overbrook, with a population of at least six hundred souls.

Earlier in my professional career I had charge of the poorest district in Philadelphia for the old Philadelphia Dispensary; here were many cases of typhoid found and treated at home, without any of the facilities of hospital or private practise. This jump from attendance on ten to twenty cases scattered through the poorer part of the town to a region where typhoid seems to be unknown has not left me unmindful of the desire to advance the success of the

treatment of this dread disease, and I have gathered from various sources and opposing factions the results and details of their ideas. The greatest interest naturally centers in the treatment of the disease, but there are other details which will bear examination.

In the first place, with our present knowledge of the cause of infection, prophylaxis is within reach of all. Its success depends on the thoroughness with which it is practised. It is the first duty of the physician to see that no second case or number of cases arise from the one he is treating. Many practitioners never even ask as to what disposition is made of the discharges of their patients. There is no excuse for this when the absolute disinfection of the feces and urine will prevent the spread of the disease from that case. The germs are cast off almost entirely by these means, although possibly in pathological discharges occurring from inflammatory lesions during the disease, and possibly to a very slight extent by exhalations. The stools and urine should be disinfected at once if the household and others at a distance are to be protected. Chloride of lime may be used, six ounces to one gallon of water. At least one quart of this should be mixed with the stools and allowed to stand for at least five hours before being thrown out. Carbolic acid or sulphate of copper, one part to twenty of water, answers very well. Corrosive sublimate is less efficient, as it forms more of a coating over the discharges. These solutions are not merely to be thrown on the stools, but *thoroughly mixed* with them. Hard parts of feces should be broken up with a glass rod or stick, which may be either disinfected or burned as the case may be. It must be impressed on the people that only a thorough, scientific use of these methods is effective. Water-closets should be flushed often, and where vaults are used large amounts of germicides should be thrown into them. For disinfecting urine, tablets of corrosive sublimate may be used. They are effective and comparatively inexpensive. Garments of the patient may be thrown into a tub containing a solution of chloride of lime one to two hundred, or of carbolic acid one to fifty or one hundred; afterwards they should be boiled. During the prevalence of an epidemic, water and milk which are used should be boiled.

Perhaps in no other disease does sensible and watchful nursing count for so much. The patient should not be exposed to further influence of the cause; for instance, in house epidemics he should be sent away if possible. In the best hospitals patients are now kept in special wards. This helps to do away with the danger of the transference of the disease, which is always present even with the best of care. It may be done, first, by a careless assistant or waiter, and secondly by the house-fly. The rôle of the fly is a leading one. It was demonstrated several years ago that flies were responsible for about twenty cases of cholera in New York City by following persons who had taken supplies to a ship in quarantine. The evidence is growing so strong that as a result the fever wards of several hospitals in this city will be guarded by screens during the coming summer. This is a new advance in preventive medicine and is an important practical point in prophylaxis.

The experience of the last few years goes to show that the rule in regard to recumbent position and rest may have been too strict. Patients who are

allowed to move about a little more, and even walk several steps to the bath-tub when that treatment is followed, are reported as doing better in consequence. Large series of cases seem to prove this, and there are also physiological reasons why it should be so. The great majority of people suffering from this disease are in adolescence or adult life, many in the very flower of life and health previously. These people who have been moving about, if forced to lie perfectly quiet, have to do this for from thirty to thirty-five days on an average. All functional activity is stopped. There is a lowering of voluntary muscle movements, also of the respiratory muscles. Circulation is slowed. The lymph movement about tendons, in muscles, etc., is retarded, and this is undoubtedly a very important part of circulation and nourishment. Thus on empirical and physiological grounds it would seem that the patient will do better if moved about a little, but of course within reasonable limits. Patients who are not suffering from peritonitis or hemorrhage may be made to sit up while examinations of the back are made. There is a fixed bath-tub in the German Hospital, and the patients, steadied by an attendant, walk to it. The worst cases are put in the beds nearest the tub and moved further away as they improve. In this way it is not so necessary to guard against bronchopneumonia and pulmonary hypostasis. The utmost cleanliness should be observed. If possible two beds should be used. The change rests the patient and gives better chance of changing the bedclothing. Fluids should be given freely. If the patient does not ask for them they should be offered. Water is probably the best. The diet should be restricted to fluid or semifluid articles; no solid food until one week after defervescence. Milk is the best food, but can be varied if the patient does not bear it well. A cup of coffee well diluted with milk, some of the varied infant foods, vanilla ice-cream, etc., may be given, as a rule, avoiding starchy food. Alcohol has no part in the treatment, except in connection with the cold bath. If the patient has been accustomed to the use of alcohol before, he should have it during the attack.

The practitioner should have a definite plan in his own mind and follow it carefully. There are now five well-recognized forms of treatment: (1) expectant; (2) expectant symptomatic; (3) specific; (4) hydrotherapeutic; (5) prophylactic by the injection of immunizing fluid.

The expectant plan gives the patient favorable surroundings, proper hygiene, careful nursing, proper diet, attends to his wants, and lets the process run its course. It is rather indifferent to medicines, or gives them in minute doses, if active drugs. If the patient has a good heart, moderate febrile movement, and no complications, it is true that only trifling methods are needed. In this connection the use of laxatives like castor oil or calomel, given every second day up to the tenth day of the attack, has been advocated by some authorities. It is not safe to give them by the mouth after this period. I believe it is to the best interest of the patient to give this treatment, for a purge is followed by a temporary fall of temperature, showing there has been toxic matter eliminated. It has also the effect of making less severe the after abdominal symptoms, as diarrhea, tympany, and intestinal lesions.

The expectant symptomatic treatment is practically the same as the pre-

ceding if no severe complications arise. Drugs are given from the beginning to help lessen the general severity of the disease. Among these are quinine, dilute acids, turpentine, silver nitrate, and hosts of others. It is not easy to say what the effects of these are. Perhaps they are without any definite effect. It is well to be on guard against attributing to therapeutics results which a natural course would bring. Wherever such a large variety of drugs are suggested for use, it is pretty certain that none are of great effect.

Headache, as a rule, requires no treatment except quietude, darkness, or perhaps some of the coal-tar analgesics. For tremor, alcohol and opium are indicated; of these, opium is perhaps the most useful drug used in typhoid fever. Meningitis may be benefited by leeching, but blood-letting is inadmissible for any other reason. Constipation should be controlled by enemata containing twenty per cent. of glycerin. It may exist with grave intestinal lesions. Diarrhea, if not more than three or four passages in twenty-four hours, needs no treatment. Its persistence suggests an exciting cause, as improper food or disease. The remedies should be at once antiseptic, astringent, and anodyne. Bismuth and opium do well. Tympany is relieved by applying ice to the belly, and alcohol and opium. If laxatives are given early in the course, tympany is apt not to be so great. Intestinal hemorrhage should be controlled by quietude, regulated diet, ice-bag to abdomen, elevating the foot of bed, and the exhibition of opium. When the hemorrhages are severe, and active measures must be taken to save life, enemata of ice water may be of service in aiding the opium, but this drug should be pushed to its full effects short of absolute poisoning. The use of ergot in this connection is unreliable; it is better to depend on opium alone. There are many other drugs recommended by writers, but they cannot be depended on. The practitioner who will give up opium for any of the astringents must be bold indeed. But the opium must be used freely and bravely. In cases of severe intestinal hemorrhage a grain to a grain and a half, and even two grains, of opium have been given every third hour. In addition to this, if they show any signs of restlessness they are given a hypodermic of morphine. No fear need be felt as to the movement of the bowel. It will be found that a spontaneous movement will ultimately take place, though this may not be for a week or even ten days. If this does not occur an enema will easily relieve the condition. Peritonitis is to be treated on general principles. Morphine and ice poultices are standards. Many cases of peritonitis are caused by infection through the thin floor of a deep ulcer and are not so serious in their results. When during defervescence or convalescence peritonitis occurs from perforation, a surgical operation should be suggested. No case of successful operation has come under my observation, but there are records of recoveries. Dr. W. W. Keen's statistics show a good percentage of recoveries in such cases. When the fact that the process is almost invariably fatal without operative interference is taken into consideration, no surgeon should hesitate to operate if called on within twelve hours after perforation has taken place. There is no question about operating for pistol-shot wounds of the gut, and the condition is practically the same here. The patient's general condition during the disease is, of course, an item against recovery that is not present in shot wounds. But a life is in imminent

danger, and the surgeon should not think about statistics but endeavor to save life. It is a fact, though, that the rank and file of surgeons are against operation. If the patient has to be catheterized, the most careful measures should be taken in regard to antisepsis, both as to the instrument used and the genitalia in male and female. It is better when the female is catheterized by nurse or physician that it should be done under exposure of the parts. The physician must work according to certain rules, and sentiment must not interfere with these.

As to heart failure, its liability must be borne in mind and the pulse watched carefully. The minimum danger from this is assured by the bath treatment. There is not only the direct stimulation derived from the bath itself to be gained, but an important indirect aid. Many of the cases of cardiac failure come from the patient suddenly sitting up or making an unusual effort, thus putting a strain upon a heart that has been quiet before. The advocates of the bath treatment claim that the movements in the bath and the walking to and from it keep the heart under discipline, as it were, and it is thus enabled to tide over critical periods where it would otherwise fail. Bear in mind that these remarks are under expectant symptomatic treatment, and that no reference is made to the cold bath here. Various internal antipyretics are in vogue, such as the coal-tar derivatives, the salicylates, quinine, etc. I will dismiss them by saying that it is the general belief in Philadelphia that they are not to be used, and the physician who prescribes them makes a blunder in therapeutics. He simply adds a new toxin to the blood, which is already struggling under a heavy load. They cause great changes in the body, as reeking sweats, etc., which are exhausting. The resultant fall in temperature is only transient and has absolutely no effect on the general course of the fever. Cold sponging is frequently used as an external antipyretic. This should be done thoroughly and not be merely a wet sponge dashed under the clothing. The bed should be protected, and a towel soaked in the cold water put on in such a way that the water runs over the body. This kept up for several minutes will have some effect in reducing the temperature.

The so-called specific plans of treatment are not well founded. Intestinal antisepsis is a good thing, but it does not gain the desired result. No germicide that will destroy all the germs in the gut even can be introduced into the body. And suppose the germs were destroyed in the intestine? Of what practical use would it be when they are in the spleen, the liver, the meninges, etc.? So far as it has advanced this plan must be regarded as a mere chimera and one having not the slightest effect on the general course of the disease.

Under the head of hydrotherapy comes the subject of systematic cold bathing, or the Brand treatment. Brand had to fight for years to gain recognition of his method, especially by the profession of his own country. His replies to their criticisms and objections, reenforced by statistics of a large number of cases, were most convincing. For something like ten years the profession has been fighting it over again in this country. Whatever has been the result, it must be said that the ones who are the most opposed to it are the ones who have never seen it practised on a large scale.

There seems to be a general consensus of opinion among those who have had experience in treating great numbers of cases that by the use of the cold-bath treatment the mortality is cut in half, if persisted in from the start. But it is scarcely correct or scientific to claim that no one need die of typhoid fever. The cold-bath treatment does not produce immunity from all dangers in the course of the disease. Again, the cold-bath treatment is not always indicated; if the temperature is not elevated to a certain point—101.4° according to some authorities, 102.5° according to others—the bath certainly is not indicated. As it is not necessary to give astringents if diarrhea does not exist, so it is not necessary to give baths if they are not needed.

The point at which to begin bathing in fever cases depends on the expected duration of the disease. Scarlet fever lasts but a few days; generally there are only two to four days when the temperature ranges above 102.5°, so it is not necessary in this disease to apply the cold baths. On the other hand, typhoid lasts about twenty days; then there is time for the heat to do harm and the baths to do good.

It is well to remember that what is wanted is the effect—no more than is necessary; shock and distress are to be shunned as far as possible.

There are four ways of applying the bath: (1) cold sponging; (2) cold pack; (3) lukewarm baths; (4) cold baths.

1. In cold sponging the patient is placed on oilcloth and sponged with ice water; this has little or no effect on adults. It rarely has any control over the temperature. On the other hand, in children it is frequently sufficient.

2. If the cold sponging has no effect, the next more vigorous form is the cold pack. In this treatment the patient is wrapped in a wet sheet and ice water is poured over the sheet. As usually done the patient is wrapped in a blanket after being wrapped in the sheet, which procedure converts the cold pack into a hot pack. The cold pack is sometimes successful, but it is generally disagreeable to the patient.

3. Bathing the patient in lukewarm water, ranging from 85° to 90°, for fifteen to twenty-five minutes, is a comfortable procedure which is sometimes enough; in fact, with children rarely is colder water needed.

4. Cold-water bathing consists in the use of water at the temperature of 65° to 70°; *never below 65°*. Many authorities advise the use of water at the temperature of 80°, which is cooled down to 70° after the insertion of the patient. Fifteen minutes is regarded as the limit. It should be remembered that the temperature falls after the removal of the patient from the bath, so that it is well to remove him as soon as it reaches 100°. The thermometer should not be placed under the axilla, but in the mouth.

It is practically impossible to begin treatment before the fifth day, unless in camp or under some similar circumstance. An approaching attack of typhoid fever is so often supposed to be a bilious attack, or something of the sort, that the patient is not usually seen until the end of the first week or during the second. So the best results must not be hoped for in any series of cases. But the general results where this plan has been followed as a routine are practically the same. It is the prevailing method of treatment in France, Germany, and Australia. It is used exclusively in the German Hospital in

Philadelphia, in the Johns Hopkins Hospital in Baltimore, and largely in the University of Pennsylvania and St. Agnes Hospitals of Philadelphia. The results agree remarkably well, and show a mortality in all cases, both good and bad, as to time of beginning treatment, complications, etc., of between seven and eight per cent.

The bathing is a systematic procedure, and I will give the details as carried out at the German Hospital, where the treatment is used most extensively. When a patient who is suspected of having the disease is admitted, he is at once bathed. Whenever the temperature is 101.4° three hours after the bath, the bath is repeated. The patient is aroused if sleeping, and becomes sufficiently awake while the temperature is being taken. If sweating, he is dried with a towel. His clothes are removed and a blanket is thrown over him while he *walks* to the tub, supported, if need be, by an assistant. He is put into the tub up to the neck, his head being placed on an air cushion, and his shoulders are supported by the slope of the tub. The tub contains approximately thirty gallons of water at the temperature of the room, if between 68° and 75°. In warm weather it is brought to about 72° by ice, the ice being removed as soon as this temperature is reached. The blanket is kept about the loins, the abdomen not being rubbed. But the chest and extremities are freely rubbed by the nurse, and the patient himself is encouraged to rub, partly as an exercise and partly to pass away the time. The head is occasionally wet with cooler water or wrapped in a compress. He is kept in the tub for fifteen minutes and then returned to bed, which has been prepared by putting a rubber blanket under the sheet. He is folded up in the sheet and dried, hot water being placed at his feet. Alcohol is used before, during, or after the bath, as his condition may indicate, giving in this way from two drachms to an ounce or more of whiskey. The patient is generally shivering and his teeth chattering after the bath, but in the course of twenty minutes he becomes warm and generally drops into a quiet sleep. This is kept up, *day and night*, every three hours so long as the temperature rises to 101.4° or above. Some of the patients get fifty baths, some eighty, and some as many as one hundred and fifty. The average number last year was fifty-one. This looks like rough treatment, and some physicians urge the shivering, the shock and discomfort of the patient during the bath as reasons for not using it. But the doctor's sentiments are not to be noticed when life is in the balance. We must not have this unreasonable objection to something not done by our fathers. It is results we are after, and in spite of criticisms and slurs and objections this method shows a saving of life not attained in any other way. The soldiers say they do not like the baths, but they feel better after taking them. Of course, we would not bathe the seventy of every hundred who are sure to get well on any treatment if we could know which they were, but we cannot tell. Now what are the results of the baths? The effect on the phenomena of the disease is most favorable. The first few may have but little effect and the individual bath does not accomplish much, but the rhythmical succession affects the body so it is able to better resist the toxins of the disease.

It is a striking fact that the baths give a temperature course corresponding very closely to that recognized by many of the older physicians as being espe-

cially favorable in prognosis. This is the remittent type, and was mentioned notably by Murchison. This is the natural course in children where the morning remissions are very marked, and the prognosis is always favorable. When the patient gets into the water he does what every one does when plunging into cold water—takes a series of deep convulsive breaths. This is what he needs. It stimulates the respiration and the circulation. The dicrotic pulse disappears, the pulse becomes slower, and more tense. The drowsy, stupid, or delirious feeling passes away, the patient is aroused, the digestion is better because of the bettered circulation, and he asks for nourishment even. After the process the toxic coefficient of the urine is multiplied five or six times. Acute nephritis is far more common in patients given the bath treatment. This is caused by the increased elimination of toxins, as just mentioned, and passes away in a short time. It is no contraindication to the treatment. I give the following statistics from the German Hospital: During 1896–97 there were 217 cases treated, with a mortality of 7.8 per cent.; in 1897 alone 153 cases, with a mortality of 6.5 per cent. The average day of the disease when admitted was 8.2; average number of days until temperature was normal, 22.7. There was intestinal hemorrhage in seven per cent. of those who recovered and in thirty per cent. of those who died. The alimentation during this treatment is the same as in other methods, and no drugs are used as a part of the course. Now this is not merely an antipyretic treatment. This has been a stumbling-block to many physicians. They say that if this is all, they can bring down the temperature more decidedly with drugs. But reduction of temperature is only an incident. The baths are given for their effect on the urine, the respiration, the circulation, the alimentary tract, etc. No living man has shown by any other method of treatment the same results that have been attained by this procedure.

I speak briefly of immunizing and sterilizing injections. Their position and exact value are unsettled, and at present they are not to be employed. In time serum-therapy may be put on a sound basis and their object attained, but this has not yet been reached.

The treatment during convalescence need hardly be enlarged upon. The patient should be more carefully looked after than in most any other disease, perhaps. Give liquid diet for one week after the normal temperature has been reached and maintained. Some patients who have not been given alcohol during the course of the disease may be bettered by egg-nogs or punch during convalescence. Constipation had best be treated by enemata until the patient is fully restored to his standard of eating and living.

THE new government hospital at Old Point, near Newport News, Va., has been named the Josiah Simpson General Hospital, in honor of Brevet-Colonel Josiah Simpson, who entered the medical department of the army in 1837 and died in 1874, while still in active service. The hospital will accommodate about 1000 patients, there being seventeen wards, capable of holding sixty patients each. The hospital is in charge of Lieut.-Col. Alfred A. Woodhull, who has six assistant surgeons and a fine corps of nurses and Red Cross men.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE HAND IN DIAGNOSIS.

How profitable from a diagnostic standpoint may be made the patient study of the hand has been admirably demonstrated in a little brochure of which Dr. Edward Blake, of London, is the author. How characteristic, he says, is the firm, friendly grip of the vigorous man, healthy alike in mind and body. If the palm be callous, or the grasp feeble, we may think of xeroderma or some type of hyperkeratosis. Merely from contact with the hand much may be inferred. The dry hand, for instance, suggests cancer, or perhaps paralytic dementia. The dry, claw-like hand comes in diabetes. If, on the contrary, the hand be hot, dry, and emaciated, tuberculosis is to be thought of; while if it be cold and dry, starvation, anemia or vasomotor ataxia are possibilities. The cold, clammy and tremulous hand is often felt in hysteria, and especially in cases of nerve poisons, such as alcohol, tea, or tobacco.

The eye being brought into active cooperation, the appearance of the hand may give valuable indications. Color and texture mean much, especially in regard to occupation and heredity. The white hand does not of necessity mean good birth or idle habits. The smooth, thin, satin-like texture of the cutis indicates atrophy. A condition associated with asteatosis or lack of oil in the skin betokens nerve injury or vasomotor disturbance.

Swelling of the hands, of course, is clinically suggestive of many things—renal diseases, alcoholism, or, if unilateral, aneurism or traumatism.

A purple tint to the skin might indicate mitral disease or the various conditions involving local asphyxia, such as Raynaud's disease. Purple spots on the dorsum are often found in uremia. In a case of coma purple spots would point to uremia, while yellow spots might indicate diabetes. Petechiæ on the dorsum have manifold meanings, and are often found in senility, scurvy, rickets, gonorrhea, syphilis, smallpox, septicemia, endocarditis, pyemia, albuminuria, and many other diseases, especially those in which there is streptococcic infection. These spots may also, it should be remembered, be due to flea-bites or toxic agents. Yellowish-red papules may suggest xanthoma of diabetic origin, and when found an examination of the urine should set the question at rest.

The nails serve as a window to the circulation, which is a most useful purpose. The nails, says Dr. Blake, are pale in hectic and in anasarca; gray in serious internal disease; yellow in jaundice; white in convalescence; chalky in some forms of paralysis; acutely livid in ague; and chronically purple in cyanosis. Brittle nails are said to be characteristic of diabetes mellitus. The striation of the nails is worth observing, being longitudinal in many infective diseases, while striation is transverse after many fevers. Increase of the lateral nail curve is said to be indicative of syphilis. In parasitic affections the areas of preference are, for animal growths, the free extremity, and for vegetable organisms the lunula end.

When the form of the hand comes to be considered many reflections arise. Dupuytren's contraction is an interesting deformity not infrequently met with. About Heberden's nodes and Haygarth's nodosities much controversy has been waged. The former are said to be gouty, while the latter are rheumatoid in origin. Clubbed fingers have been much discussed and generally deemed characteristic of phthisis. They are undoubtedly characteristic of many other conditions from purely mechanical causes. The finger-tip is naturally the point of least resistance. In clubbed fingers venous and lymphatic flow may be obstructed or vasomotor paresis may be present.

To begin even to consider the lines of the hand might take us out of the domain of practical medicine, and land us in that bewildering region which the chirologist claims as particularly his own. There is little doubt, however, that the comparative and scientific study of the origin of the lines of the hand might prove a most profitable study, and might bear fruit in creating a genuine science of palmistry that would outvie in its range of application the pretensions of its discredited progenitor.

EDITORIAL NOTES.

Vivisection Legislation.

During the present month it is intended to hold in Washington a meeting of the American Humane Society, at which it is possible definite action may be taken leading to the vivisection bill now pending in the Senate being called up and passed. It is recommended that this meeting be watched, and that all persons interested in scientific progress endeavor to interest their respective senators and representatives in regard to the matter. It is quite within range of possibility that the senators and representatives who were able to indulge so freely in demonstrations of lacrimation when the woes of the Cubans were portrayed to them, will be found sufficiently zoophilistic to assist in the enactment of measures calculated to impair the humane intentions of science.

ITEMS AND NOTES.

In Vienna up to the present time three persons have succumbed to the bubonic plague.

Leiter Hospital, at Camp Thomas, Ga., has been closed, there being no further need for it.

The French Congress of Gynecology, Obstetrics and Pediatrics at Marseilles was successful in every way.

Dr. Nicholas Senn has been elected President of the Chicago Gynecological Society for the ensuing year.

After the first of January, 1899, the *Philadelphia Polyclinic* will be merged into the *Philadelphia Medical Journal.*

It is estimated that there are now 4500 women practising medicine in America, against 500 twenty-seven years ago.

By the trades laws in Germany membership in a sick club is compulsory on every working man earning less than 2000 marks ($500) a year.

Professor Albert, of Vienna, according to the *Medical Record*, renders the golden rule thus: "Castrate others as you would they should castrate you."

According to a statement made by Gen. Leonard Wood there had been but one case of yellow fever in Santiago in the sixty days previous to November 1.

Tuberculosis, according to the French war office reports at Algeria, occurs at the rate of 1 to 36.9 among the Jews; in all others at the rate of 1 to 9.3.

Medical men in Paris find that the oil-motor tricycle is a much cheaper and more satisfactory means of getting over ground than is the horse and carriage.

Professor Haydenreich, Dean of the Faculty of Medicine at Nancy, and Professor of Clinical Surgery, has just died from having pricked his finger at an operation.

According to the *New York Times*, a Christian scientist has been arrested at Cincinnati by order of the State Board of Health as being accessory to the death of a patient suffering from typhoid fever.

Professor Bouchacourt, Professor of Obstetrics of the Faculty at Lyons, has recently died at an advanced age. He was the author of many important works dealing with his particular department of practise.

THE outbreak of bubonic plague in Nothnagel's laboratory is a very sad occurrence. Barisch, the student, is dead; Muller, the physician who attended him, is also dead; and the nurses are also ill from the same trouble.

JOHN BLAIR GIBBS was the first medical officer to fall in the Spanish-American war. This fact has been commemorated by naming the hospital at Camp Hamilton, Lexington, Ky., the John Blair Gibbs Hospital.

AUTHORITY has been given the Surgeon-General to convene from time to time boards of medical officers at camps, hospitals, or wherever required for the examination of acting assistant surgeons now in service and of candidates for appointment.

THE Mississippi Valley Medical Association passed resolutions condemning as unethical and unprofessional the conduct of Professor Behring in patenting his antidiphtheritic serum, and affirming it the duty of every member to renounce the use of Behring's serum.

IN Berlin, says the *Dietetic and Hygienic Gazette*, the bakers have been induced to prevent contamination from handling or from the dust of the streets by enclosing each loaf, as soon as baked, in a loaf-shaped paper-bag, which is quickly sealed by twisting the open ends.

THE city of Paris (*Journal of the American Medical Association*) has recently entered into possession of a much needed asylum for convalescents, a château at Marie-sur-Marne, which, with its large grounds, was bequeathed by its late proprietor for the use of women who have undergone surgical operations in the Paris hospitals. There is already room for forty.

THE city of London, England, has twenty-seven large hospitals under the poor law, containing in the aggregate no less than 14,205 beds for the sick. This does not include the hospitals of the Metropolitan Asylums Board, or the beds provided for the insane, the aged, or the merely infirm. It is proposed to expend about $5,000,000 in additional accommodations.

THE *British Medical Journal* cites the case of a young naval officer who slept continuously for more than fifty days. He passed into the somnolent condition immediately after passing an examination for the service, for which he had been preparing under forced study for more than a year. On awakening he had perfect recollection of events up to the time he went to sleep.

ACCORDING to *The Lancet* Dr. Guiseppe Sanarelli, of the Uruguayan Medical School, and Director of the Hygienic Institute at Montevidio, whose discovery of the microbe of yellow fever has brought him much distinction, has been offered by Dr. Baccelli (Minister of Public Instruction) the chair of hygiene in the University of Bologna left vacant by Professor Roncati. The offer was made in accordance with the express wish of the Bolognese medical faculty.

Several men, says Dr. Chas. Baum, in the *Philadelphia Polyclinic*, subject to annual attacks of hay-fever, who have been employed in cold storage warehouses, have found that they have escaped an attack this season. Experiments have been made on three other cases, each spending one hour twice or three times daily in the cold storage room. In each case the results were highly satisfactory, the malady being held in almost complete abeyance.

The Missouri School of Osteopathy, in a foot-note on the diplomas issued by them, defines osteopathy as follows: "Osteopathy is the science of healing without the use of drugs, and is the art of manipulating the various parts of the body on the purely mechanical principle in the reduction of discolorations and fractures and in the removing of obstructions to the current force of fluids of the body, thereby assisting Nature to maintain a healthy action of all the functions of the system."

The Massachusetts Hospital for Epileptics at Monson, which opened last May, is already crowded, and an appeal will probably be made to the next Legislature for funds so that additional room can be provided. The original plan was to furnish accommodations for 200, but 208 have already been taken in, and many more should be admitted. There are said to be 4000 epileptics in the State, and the doctors say there are 200 in Hampden county. About 700 are in public institutions, mostly insane asylums.

According to the most recent issue of the German Universitætskalender the number of students of medicine in the several universities is as follows: Munich, 1416; Vienna, 1192; Berlin, 1090; Würzburg, 680; Leipzig, 630; Freiburg, 522; Kiel, 428; Graz, 417; Erlangen, 414; Breslau, 364; Zurich, 340; Bonn, 337; Strassburg, 324; Greifswald, 323; Tübingen, 278; Marburg, 274; Heidelberg, 272; Geneva, 270; Königsberg, 249; Halle, 245; Giessen, 240; Göttingen, 225; Jena, 222; Bern, 189; Lausanne, 145; Basel, 141; Rostock, 99; a total of 11,286.

The final plans for the new building of the Jefferson Medical College, which is now in course of erection at the northwest corner of Tenth and Walnut Streets, have been approved by the trustees of the institution, and the structure when completed will be one of the handsomest of the kind in this country, and will cost about $250,000. The building will be of the Italian Renaissance style and will be six stories in height, having a frontage of 118 feet on Walnut Street and 105 feet on Tenth Street. It is expected to be completed by June 1, 1899.

The following story is told of Professor Koch, who has been studying malaria in the hospitals of the Eternal City: According to *La Tribuna*, in the Sancto Spirito Hospital he came across a patient with pernicious malaria, admitted apparently in a dying state. He asked that this body might be kept for his examination. The next day the corpse greeted the professor with a very significant smile. A cure had been wrought by the intravenous injection of quinine according to Professor Baccelli's method. The case is said to have made a deep impression upon Professor Koch.

A Lyons surgeon, says the *Philadelphia Medical Journal*, was recently sued for $2000, the allegation being that he was responsible for the death of a lady upon whom he had operated. The decision was to the following effect: "The patient appears to have died from septic troubles connected with metritis determining pulmonary congestion following the operation. But the operator cannot be held responsible for complications that cannot be foreseen and which rarely occur. If such responsibilities were admitted the practise of medicine in many cases would be rendered impossible."

According to the fortieth annual report of the Commissioners in Lunacy, says the *Hospital Record*, the total number of insane people in Scotland—that is, the total number officially known—was 14,906 at the end of the year 1897, and of this total 2295 were private patients, and 56 were State patients. It would seem that the number of lunatics in Scotland increased by 406 during the year 1897, and that 73 were private patients and 333 were paupers. The expenditure in 1896 amounted to $125 per annum for each lunatic confined in a public establishment, and during last year there was a slight fall in this; but when an average is taken of all the paupers in asylums, in poorhouses, and in private dwellings, it is seen that there was a slight rise, from $115 to $116.50.

The announcement of the birth of a son to the Duchess of Aosta is declared to be another triumph for Dr. Schenck, the embryologist, who recently announced his discovery of the secret of sex, or the principles which regulate the production of male children. The Duchess of Aosta is said to have been a patient of Dr. Schenck, and to his careful treatment is due the birth of an heir to the Italian throne. The Duchess of Aosta is the third woman of high rank to demonstrate the efficacy of Dr. Schenck's treatment. The first was the Archduchess Frederick of Austria, and the second the Countess of Warwick. It is stated that Dr. Schenck has been in attendance upon a number of royal women who desire to bear sons for the inheritance of great titles.

According to the *Medical Press and Circular*, in the list of articles requisitioned by Captain Dreyfus in the Ile du Diable for the ensuing month's consumption, are such delicacies as chocolate and Camembert cheese, an abundant supply of tobacco, toilet articles such as soap, and medicinal supplies in the shape of a couple of bottles of Hunyadi Janos water. The fact that Dreyfus smokes, says this journal, may be taken as evidence that he is not indifferent to his creature comforts, just as the demand for plenty of soap shows that he has not lapsed into a state of despondency, indifference to personal cleanliness being one of the earliest indications of utter despair. An even more hopeful sign is the demand for Hunyadi Janos water. A man who contemplates suicide, or who has lost all interest in life, does not trouble about his bowels, and the foresight which the ex-captain manifests in this respect shows either that he is of an extraordinarily hopeful temperament, or that he still cherishes the hope of ultimate justice at the hands of his fellow countrymen.

In a paper read a short time ago by Dr. Hill, Master of Downing College, Cambridge, before the Sanitary Institute of England, he said that about one million babies were born annually in England. Thirty thousand of the million would die violent deaths from accident, 30,000 would die unnecessarily from tuberculosis, and 120,000 more from other absolutely preventable causes, such as smallpox, measles, and scarlet fever. Only 45,000 would be allowed to live out their natural lives, and nearly one in twenty would die because the machine was worn out. One-fourth of all the diseases which destroy life are absolutely preventable, and fifteen years would at once be added to its average duration if the practise of hygiene were placed on a level with its theory. Dr. Hill attributed the greater number of the diseases over which the individuals affected by them have personal control to mistakes in eating and drinking.

Fresnel, in an article published in the *Revue des Deux Mondes* in 1838 (*Medical Record*) describes as an invariable wedding ceremony among the Arabs of Djezan a procedure which, it would seem, would hardly tend to make marriage popular. This operation consists in a most extensive circumcision, which is performed in the presence of the assembled wedding guests as well as the bride herself. The victim is turned over to the holy operator, who proceeds to remove not only the prepuce but the entire skin of the penis as far back as the scrotum. "Should the happy bridegroom betray any sign of weakness or allow as much as a sigh or a groan to escape him, or even allow the muscles of the face to betray the fact that he is not immensely enjoying the occasion, the bride elect at once leaves him for good, saying that she does not wish a woman for her husband." This operation is naturally frequently fatal, so that the Arabs might be "likened to those spiders which perish during their first and only act of copulation, and are immediately devoured by the female, the difference being that the spider's death is probably a happy one, which can scarcely be said of the Arab's."

The late Professor Baron, a member of the faculty of law at the University of Greifswald, has, says *The Lancet*, bequeathed a sum of $125,000 to the city of Berlin for the purpose of erecting a home for orphans. The late professor was a strong adherent to the principles of vegetarianism, and in his will he stipulated that none but vegetarian food should be used in the home. In addition to being a fervent vegetarian he also looked on the medical profession with disfavor, and there was therefore another paragraph in his will to the effect that medical men were to be excluded from the board of managers and that in cases of illness the advice of a "hydrotherapeutist" was to be obtained. The municipal council is in great difficulties in connection with this legacy, especially its last mentioned proviso. Our "ædiles," of course, would like to accept the large sum left to them and would like to employ it for the philanthropic work devised by the testator; but they cannot do so without strictly executing the peculiar provisions contained in the will. A subcommittee elected to find a way out of this dilemma has not been able to come to a definite opinion, and the matter continues to be discussed both in the vegetarian and medical associations, one party asking the municipal council to accept, the other to reject, the sum given under such conditions.

NEW PUBLICATIONS.

A TREATISE ON DISEASES OF THE EAR.

The third edition of Buck's "Treatise on Diseases of the Ear" presents a book of uncommon value not only to the specialist but to the general practitioner as well. We know of no other book on the ear, of its size, that covers the subject so thoroughly. "Those pathological conditions of the fauces, vault of the pharynx, and nasal cavities, which play an important part in ear diseases," are ably treated. Much space is devoted to diseases of the mastoid process and neighboring structures. In short, the work is up to date, recognizing that the successful aural surgeon of to-day must be a first-class rhinologist and also a brain surgeon who must act promptly and boldly in dealing with cases of intracranial diseases of otitic origin. The book is rich in illustrations, and the publishers have done their part admirably.

A Treatise on Diseases of the Ear. Together with a Brief Sketch of the Anatomy and Physiology of This Organ. By Albert H. Buck, M.D., Clinical Professor of the Diseases of the Ear, College of Physicians and Surgeons, Medical Department of Columbia University, New York; Consulting Aural Surgeon, New York Eye and Ear Infirmary and the Presbyterian Hospital. Third Revised Edition.

THE POCKET MEDICAL DICTIONARY.

Dr. Gould's Medical Dictionary has been entirely rewritten and enlarged, so that it now contains over 21,000 words. This enlargement seems to be in every respect genuine and not made up of obsolete terms. The pronunciation key is well adapted to the purposes it serves. The definitions are concise and quite to the point. It is convenient in size and shape and durably bound. It will fill all the purposes for which a dictionary is designed.

A Pocket Medical Dictionary, Giving the Pronunciation and Definition of the Principal Words Used in Medicine and the Collateral Sciences, Including Very Complete Tables of the Arteries, Muscles, Nerves, Bacteria, Bacilli, Micrococci, Spirilli, and Thermometric Scales, and a Dose-list of Drugs and Their Preparations, in both the English and Metric Systems of Weights and Measures. By George M. Gould, A.M., M.D., Author of "The Illustrated Medical Dictionary," etc. A New Edition, Entirely Rewritten and Enlarged, Including Over 21,000 Words. Philadelphia: P. Blakiston's Son & Co., 1898.

THE HAND.

Dr. Edward Blake furnishes us with a very interesting study on the hand for indications of local and general disease. It is a very complete study of the subject. The clinical indications of dryness, moisture, color, texture, the nails, the form, distortions and diseases generally, are carefully and lucidly explained. The various malformations of the hands, clubbed fingers, and the peculiar conformation of the hand in many diseases, such as acromegaly, are included in this study. Nervous disturbances also find systematic mention. The work is an exceedingly interesting one and will be valuable to those seeking for clinical manifestations of disease.

On the Study of the Hand for Indications of Local and General Disease. By Edward Blake, M.D., Author of "Lip Chorea or Pterygoid Stammering," etc. Price, 2s. 6d. net. London: Henry J. Glaisher, 57 Wigmore Street, Cavendish Square, W.; John Bale, Sons & Danielsson, Ltd., Oxford House, 83-89 Great Titchfield Street, Oxford Street, W.

THE MIND READER.

There is nothing in this story which calls for comment from a medical or scientific standpoint, as it deals with matters which are above and beyond criticism. The story is a very exciting one, in which swindlers, murderers, Mormons, and others are mixed up in many strange adventures. Through it all is a wonderful blending of hypnotism, telepathy, clairvoyance, and clairaudience. The operation of these esoteric gifts saves the hero and heroine from many a fell disaster. The manifestations of the occult sciences made use of in the book are of course unintelligible to any but those who may be initiated in such mysteries. The story, however, has considerable merit, and an hour or two may not unprofitably be spent in its perusal.

The Mind Reader. By L. M. Phillips, M.D. London and New York: F. Tennyson Neely.

MANUAL OF VENEREAL DISEASES.

Hayden's valuable little manual of venereal diseases, in its second edition, calls for passing notice. It is divided into three sections, dealing with the three classical venereal troubles—gonorrhea, chancroid, and syphilis. The treatment of these troubles is commented upon in accordance with modern ideas, and the manual will be found handy and useful in the management of the disorders of which it treats.

A Manual of Venereal Diseases. By James R. Hayden, M.D., Chief of Clinic and Instructor in Venereal and Genito-urinary Diseases at the College of Physicians and Surgeons (Columbia University), New York, etc. With Fifty-four Illustrations. New York and Philadelphia: Lea Brothers & Co.

THE CARE OF THE BABY.

This popular handbook has entered the second edition. It contains a large amount of information regarding the early years of an individual's life. It is written in a plain-spoken style, so that it becomes suitable reading for mothers and nurses. The physician may safely recommend the book, as it contains nothing derogatory to his influence in the family. The important questions of feeding, clothing, and exercise are treated in a rational and wise spirit.

The Care of the Baby. A Manual for Mothers and Nurses, Containing Practical Directions for the Management of Infancy and Childhood in Health and in Disease. By J. P. Crozer Griffith, M.D. Second Edition, Revised. Philadelphia: W. B. Saunders, 1898.

THE MEDICAL NEWS VISITING LIST.

This is the season for visiting lists, and among those which will be patronized largely the first of the year will undoubtedly be this one, which has already won a high place among such publications. This list contains spaces for all the memoranda which it is conceived possible that a physician should need to make. Valuable tables of doses, poisons and antidotes, artificial respiration methods, and much other useful information finds its place in the preliminary part of this book.

The Medical News Visiting List for 1899. Thirty Patients Per Week. Philadelphia and New York: Lea Brothers & Co., 1898.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY.

The Transactions of the Michigan State Medical Society are presented in a well bound volume. While not in quantity equaling former issues, the quality of the papers here presented is notable. The Society contains among its members many excellent writers, and the volume is one which does credit to any medical society.

Transactions of the Michigan State Medical Society for the Year 1898. Volume XXII. Grand Rapids: Published by the Society, 1898.

DIET FOR THE SICK.

This little book is in the nature of an addendum to a cook-book. It explains the way of making many invalid foods. The book is cheap enough in price to allow the physician to distribute it gratuitously among his families.

Diet for the Sick. By Miss E. Hibbard and Mrs. Emma Drant, Matrons at Two Large Hospitals in Detroit. 103 pages; board sides, post-paid, 25 cents. Detroit, Mich.: The Illustrated Medical Journal Co.

BLAKISTON'S VISITING LIST.

This physician's visiting list now appears for the forty-eighth time in much the same garb as in previous years. Its utility is in every way unimpaired, and its popularity bids fair to make it some day a centenarian among visiting lists. The usual useful tables are incorporated in the book.

The Physician's Visiting List (Lindsay & Blakiston's) for 1899. Forty-eighth Year of its Publication. Philadelphia: P. Blakiston's Son & Co. (Successors to Lindsay & Blakiston).

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Mistakes in the Treatment of Talipes (Equino-Varus).

W. V. Morgan, in the *International Journal of Surgery*, says that mistakes in the treatment of talipes concern both the time at which treatment should begin, the degree of correction of the deformity, and the methods used in securing correction. Other things being equal, patients with non-paralytic talipes (equino-varus) should be prepared to walk nearly as early as children without such deformity. But instead of being so prepared, it is quite common to have such patients brought for first consultation at the age of twelve, eighteen or twenty-four months, or older, the parents volunteering the statement that they had been advised to delay treatment until the patient is older or stronger. In most cases to such delay can be charged the necessity or the excuse for exsection of the astragalus, cuneiform osteotomy, and the dozen other mutilating operations done for the correction of this deformity. In congenital cases treatment should begin immediately after birth, or to get a still earlier start, if the presentation be podalic, it would be well to give the foot a corrective twist while we await the arrival of the remainder of the body. It is erroneous to believe that this treatment should involve great pain. The correction should depend more upon persistency than upon severity, and one of the keys to success is to enlist the hearty cooperation of the mother, whose hand is guided both by duty and love. As a rule, no crushing of tender bones nor rupturing of delicate ligaments is necessary. The plastic tissues gradually yield to the intelligently applied force to such an extent that, by the natural time for the child to walk, the feet are in proper condition to receive the corrective force of the body weight. It must be evident that a given amount of force will have effect in inverse ratio to the density of tissues acted upon.

Congenital Absence of the Glans Penis.

Dr. I. E. Atkinson in the *New York Medical Journal* of November 5, 1898, reports a case of this rare deformity, as follows:

Mr. M——, aged about forty years, consulted the author for a trouble which he had diagnosticated as adherent prepuce. A careful examination revealed the true character of the malformation, an absence of the glans penis. The root and body were normally formed, and of about the usual diameter and length. The corpora cavernosa and corpus spongiosum, both apparently of the same length, ended together in a nicely rounded and slightly pointed "stump." The prepuce was rather long; the internal layer did not, however, resemble in character normal mucous membrane, except for a distance of perhaps an eighth of an inch from its juncture with the urethral mucous membrane. The urethra, in the usual position in the body, was curved forward along the end of the penis, terminating in a round meatus near the center of the end of that organ.

The patient sought relief, believing he had but an abnormally long prepuce adherent to the entire glans, which prevented him from passing a full stream of urine, and also because he did not seem to enjoy the same pleasurable sensation in coition that he imagined other men did.

Diagnosis of Bullet Wounds of the Abdomen.

In diagnosing bullet wounds of the abdomen, H. Taylor, in the *Maryland Medical Journal* of October 1, 1898, says that the diagnosis involves a differentiation (*a*) between non-penetrating and penetrating wounds of the abdomen; (*b*) between penetrating wounds with and those without visceral lesion; and (*c*) between lesions of hollow and solid viscera; and urges: (1) That an *x*-ray examination, locating the bullet in the abdominal wall, is the only contingent which warrants us in not laying open the tubular bullet tract down to the peritoneum to ascertain if the cavity has been penetrated; (2) that we are justified, if ever, in non-operative interference only in the event of Senn's hydrogen gas affording evidence that there is no hollow visceral lesion, and the absence of symptoms of hemorrhage leads us to suppose there is no solid visceral lesion; (3) that until our means of differential diagnosis is very markedly advanced the safe and conservative course in all penetrating wounds of the abdomen is to open the abdomen early and do thorough and quick intra-abdominal work.

MEDICINE.

Dieting in Cases of Hyperacidity.

From former experiments Lorenzen and Metzger (*Therapeutische Monatshefte*, No. 8, 1898) conclude that the assertion made by several authors, to the effect that albuminous diet creates a salty secretion in the hyperacid stomach, is incorrect. The reaction is practically the same as with carbohydrates. The advantages of albuminous food consist in its small volume, its great acid combining powers, its rapid digestion, and in the fact that albumen generally produces most favorable results in hyperacidity. The human being, however, being unable to subsist on albumen alone, a diet with which fat has been mixed appears to be the most appropriate, in which case the preparation of the food is most important.

Use of Formogene Lamps for the Disinfection of Rooms.

A. A. Kanthack, M.A., M.D., in *The Lancet* of October 22, 1898, after having made an extended series of experiments with formogene lamps to test their efficacy in the disinfection of rooms, draws the following conclusions:

1. With regard to the formogene Richard lamp it is necessary, as numerous preliminary experiments have shown, to use two lamps, even for so small a room as the one in which these experiments have been made.

2. Formalin does not penetrate deeply and, as admitted by all competent observers, cannot be used for the sterilization of blankets, linen, etc., heaped one upon the other; it is merely a superficial disinfectant.

3. It must be pointed out that blood and fecal stains are indelibly fixed in handkerchiefs and linen and such like material. Such articles must therefore be disinfected by means of boiling or steam.

4. Metal, dyes, and most colors are not destroyed, although some aniline dyes may be slightly altered.

5. Dust and soil are not sterilized with certainty.

6. Formalin, if efficiently produced, is useful for the superficial disinfection of such substances as are injured by steam or liquid disinfectants or by irritant gaseous bodies such as chlorine.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,

Microscopist to Harper Hospital, Detroit.

Origin, Growth and Fate of the Corpus Luteum.

From researches on the ovaries of the pig and woman Blark (*Archiv für Anat. und Physiol.*, 1898; *Centralblatt für Gynäkologie*, 43, 1898) attempts to settle the mooted question involved in the von Baer and the Bischoff theories regarding the corpus luteum. The former held that the formation was due to changes in the tunica interna, without the participation of the blood coagulum or the follicle epithelium; while the latter believed that the chief rôle was played by specific changes in the follicle epithelium which gave rise to the formation of lutein. Blark concludes from his studies that:

1. The lutein cells are essentially connective tissue cells which appear in the inner layer of the follicle wall at the time when this begins to differentiate into external and internal theca; the cells increase in size and number until maturation of the follicle, by which time they have acquired all of the peculiarities which have led to their designation as "lutein cells." The corpus luteum is, therefore, not an epithelial but a connective tissue product.

2. During the growth of the theca interna the lutein cells increase at the expense of the ordinary connective tissue cells, until the latter appear in the matured follicle as a few developed cells and a fine reticulum. The reticulum forms a fine network which extends from the theca externa and spreads out between the lutein cells; beyond these it is raised into a more or less fine tunic known as the membrana propria.

3. At the time of follicle rupture the membrana propria is penetrated at different points by projecting lutein cells and blood-vessels; but a connective tissue layer is soon formed in front of the lutein cells, which are forced more and more towards the center, where they finally form a firm plug with intermingled fibers.

4. Following rupture of the follicle the lutein cells (connective tissue cells) show a remarkable activity, increasing in number and size until the empty follicle is completely filled up; they then begin to degenerate.

5. The fine reticulum between the lutein cells is the precursor of the connective tissue cells, which are very scanty in the first stage of development

of the corpus luteum, but which, soon after the acme of its development is reached, form the most prominent structure.

6. The destruction of lutein cells is possibly inaugurated by the increasing thickening of the surrounding connective tissue.

7. The retrogression of the corpus luteum is characterized at first by a fatty degeneration of the lutein cells; later by the contraction of the connective tissue reticulum to a compact body (corpus fibrosum). The latter then undergoes a gradual hyaline change, until finally only a very fine scar tissue remains, which at last disappears in the ovarian stroma.

8. The blood-vessels withstand the degenerative changes for a long time, the largest of them being of those structures which remain longest during the process of retrogression.

9. The function of the corpus luteum is to regulate the circulation in the ovary. It fulfils this completely in young women, but with increasing thickening of the stroma its usefulness is diminished, on account of the slow absorption, or not at all, of its remains, until finally it hastens the circulatory crippling, thus completely reversing its object.

10. The menopause is not ushered in by the disappearance of the follicle, but by a thickening of the ovarian stroma and an interference with the peripheral circulation, which leads to arrest of development.

THERAPEUTICS.

The Effects of Mercury on the Kidneys.

Basing his deductions upon sixteen personal experiments upon animals, regarding the action of mercury upon the kidneys, and upon a very careful critical study of the clinical facts published in the literature, J. J. Karvonen (*Journal of Cutaneous and Genito-Urinary Diseases*, November, 1898) gives a complete picture of the action of mercury on the renal filter, considering critically every symptom produced by it, clinically and histologically. Some points upon which the author insists when he deals with the therapy of kidney diseases due to mercury are worth mentioning. Opium must not be used in diarrhea due to the drug. The bowels are to be kept open by means of oil, castor oil, and especially by washing the intestines. Atropine is sometimes of use, as the action of the heart and diuresis are increased. He lays special stress on the two facts that mercury must not be administered before the condition of the kidneys is looked into, and the gingivitis is not always the first symptom of mercurial poisoning, as the irritation of the kidneys may sometimes reach a high degree, while the gums are entirely healthy looking.

The Painless Treatment of Cracks in the Nipples.

MM. Maygrier and R. Blondel (Paris correspondence, *Lancet*) report forty cases of cracked nipples treated with orthoform. They dressed the cracks with orthoform, which brought about complete anesthesia during suckling and kept the cracks aseptic. The application of the powder causes only slight

smarting. The infant was put to the breast a quarter of an hour afterwards and sucked eagerly, as orthoform has neither taste nor smell. The anesthesia persists for some time. MM. Maygrier and Blondel made trial of orthoform powder alone, or orthoform followed by a moist dressing of boric acid, and finally with a strong alcoholic solution of orthoform dropped into the cracks. They considered this last method the best, for it caused no more initial smarting, but quite did away with infection of the breast, probably because the solution was able to penetrate into the recesses of the fissures.

Endermol in Treatment of Scabies.

Wolters (*Therapeutische Monatshefte*, No. 9, 1898) says that sixty-seven cases of scabies were treated with 0.1-per-cent. endermol ointment, all resulting favorably. In sixty-four of these cases four applications were found sufficient, while for the remaining three six applications were required. On the second or third day the patients were proclaimed cured. The advantages of this salve over others for scabies are as follows: It does not irritate as does naphtha; it produces no albuminuria; has no intoxicating effects as have Peru balsam, naphthaline, etc., etc.; and is not uncleanly. This ointment is especially recommended for private practise on account of its cleanliness and freedom from smell.

Morphine Derivatives.

Dresser (*Therapeutische Monatshefte*, No. 9, 1898) says that heroin produces a stronger sedative action on the breathing than morphine or codeine, over which latter it claims the exceptional advantage that its lethal dose only amounts to one hundred times as much as the ordinary dose. According to Dr. Floret it should be administered with saccharine cough mixture in doses from 0.0005 to 0.01 grammes. Heroin is specially effective in relieving bronchial asthma. The preparation appears to possess no anodyne powers.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,
Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

Acetanilid as a Preventive of Premature Expulsion of the Ovum.

Harnsberger (*Journal of the American Medical Association*, Oct. 22, 1898) believes that interrupted pregnancy is not, as a rule, due to single causes, but is the result of a combination of several, the underlying condition being a systemic or nervous depreciation brought on by the early operation of overstrained or other sinister influences incident to modern times and modern modes of living. By directing proper attention to the predisposing first cause, the tendency to abortions and premature labors can be notably limited. With women in whom the existence of pregnancy is uncertain but strongly suggestive during the first two months, it is desirable that the uterus should be

assisted in retaining the products of conception if present. We frequently see women who are usually regular pass over a catamenial period. Their suspicions may be aroused, but at the appearance very soon thereafter of the menstrual flux, though it should be accompanied by an increased discharge and more pain, it is looked upon as only a delayed period, they being unaware that one of the clots which has been expelled contained the immature ovum. In such instances, as well as in habitual abortion, the author advocates the exhibition of five to eight grains of acetanilid, repeated in one, two or four hours as necessary. In cases of ovarian irritation, where there seems to be a tendency to separation of the ovum at what would have been a menstrual period, the more or less regular use of viburnum prunifolium and potassium bromide, with acetanilid at the time of each periodic disturbance, is recommended. In emergency cases acetanilid 10 to 15 grains, repeated at short intervals, should be given. For those who are not accustomed to this drug it would be well to begin with 5 to 7½ grains, but in every instance individual susceptibility should be considered.

Harnsberger has employed acetanilid in the manner indicated for several years, and has never seen alarming or even objectionable symptoms arise—such as nausea, vomiting, collapse, or cardiac depression — or cumulative action following its use. It does infrequently give rise to a rather profuse perspiration, but this in no way interferes with the successful progress of the case. Contrary to the observations of Dulácska and others, he finds that the action of the drug on the vascular system does not tend to induce dangerous hemorrhage.

The Conservative Surgery of the Uterine Appendages.

A. P. Dudley (*American Gynecological and Obstetrical Journal*, October, 1898) reports further on his work in this line, having now had 103 consecutive cases without a death. He advocates the removal of only such parts of the ovary or tube as may be diseased, the open surfaces of the remaining healthy parts being brought together by suture, and the ovary, where amputation of the tube has been done, attached to the stump of the latter. In cases where the tube alone is involved adhesions are curetted off from the ovary; and in a case cited the surface of the latter was thoroughly touched all over with pure carbolic acid, this being washed off with proof alcohol, and again with sterilized boiled water. This patient made a good recovery, and was afterwards able to do her own work. When seen five months after operation it was found that menstruation had been reestablished, and the patient had gained in weight and general health.

Post-parturient Eventration.

T. H. Manley (*Southern Medical Record*, September, 1898) saw two cases of remarkable collapse forward of the abdominal walls following labor. The patients sought relief by surgery from the so-called "pot-belly." Both were young women who had gone through normal confinements, but below the umbilicus it was quite evident that over the anterior lateral aspects of the

abdomen no vestige of muscular tissue remained. The floating viscera tumbled into a thin, attenuated pouch over the pelvic brim, and with the hand one could pick up the thin, parchment-like envelope and readily feel the vermicular movements of the intestines. Both women were in good health and showed no signs of disease of any of the pelvic organs. Manley had seen one such case post mortem in a woman who had for thirty years a large uterine fibroid. No surgical operation for the relief of the condition could be recommended.

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT, MICH.,
Attending Neurologist to Harper Hospital.

Acute Delirium.

A very practical article on this subject by Dr. H. R. Coston is to be found in the *Medical News* of October 1, 1898. A disease as yet of unsettled pathology, it is believed by the author to be a toxemia expending its force upon the cortex cerebri. Heredity is said to play no part here; it is common to both sexes, is a disease of adult life, but in the majority of cases has occurred under thirty. The three cases here reported are all females, aged fifteen, thirteen and twenty respectively. In two no cause was apparent; the third was apparently due to overworry. The first two were fatal; the third recovered. All showed great motor excitement, high fever (100° to 103° F.), rapid pulse (100 to 130 and more); vision was much affected, blindness in one case lasting for four days. In all there developed diminished tactile sensibility, insomnia, diminished renal activity, and loss of flesh.

Distressing hallucinations are wont to develop—scorpions, lizards, toads, *et id omne genus;* outbreaks of greatest violence occur, and the most profane and vulgar talk is heard, even from girls of greatest gentleness and refinement; friends are recognized and as quickly forgotten; a typhoid condition ensues, and death in coma within fifteen days is the common ending.

If the case is seen early, its development and other history will exclude typhoid fever; clinical differences would soon clear up a mistaken diagnosis of hysteria. The differential diagnosis from acute mania is more difficult. The symptoms here are more grave, the course more brief; the temperature is here elevated, in mania lowered. The delirium in mania is a conscious delirium, here unconscious; the appetite in mania, often enormous, is here wanting. The prodromata of mania are here absent.

About this much of the pathology seems to be established: that "there is hyperemia of the cortex and membranes, which is rapidly followed by edema and choking up of the lymph-spaces with blood-corpuscles. Minute hemorrhagic foci are found in the cortical substance, and there may be diminished consistence of the brain."

As to treatment, Osler would not hesitate to bleed freely. Cold to the head, calomel, ergot, bromide and chloral, paraldehyde, duboisin, sulphonal and trional, strychnine when indicated, are all recommended for their especial

effects. The author specially commends hydrobromate of hyoscine in doses of from $\frac{1}{60}$ to $\frac{1}{20}$ grain. Efficient nourishment, the greatest quiet possible, and free elimination are all-important.

Myotonia.

The July number of the *Journal of Nervous and Mental Disease* contains an interesting article on myotonia by Dr. Geo. W. Jacoby, in which, after reporting several cases and discussing sundry features of the disease, he contends for the myopathic theory as to the nature of the disease, citing as arguments the pathological findings from portions of muscles excised from living patients, viz., the hypertrophy and rounding off of the muscular fibers, the increase of sarcolemma nuclei, the diffuseness, indistinctness and even loss of the transverse striation, etc.

Drainage in Hydrocephalus.

In the *Scottish Medical and Surgical Journal* for March, 1898, a most interesting case is reported in which resort was had to drainage through the fourth ventricle in a case of acquired hydrocephalus, with temporary benefit, the patient dying, however, some days later.

PEDIATRICS.

UNDER THE DIRECTION OF CHARLES G. JENNINGS, M.D.,

Professor of Practise of Medicine and Clinical Diseases of Children, Detroit College of Medicine.

The Treatment of Rheumatism in Children.

A. C. Cotton, in the *Medical Standard* for October, 1898, says that the treatment of rheumatism, particularly in children, really resolves itself into the question of the treatment of endocarditis. This he believes to be especially true for the want of demonstration that any treatment of acute inflammatory rheumatism, except the prophylactic, will prevent the subsequent lesions of the endocardium. By many pathologists the endocarditis is regarded as the result of traumatic injury from the impact of the valves occurring abnormally on account of the change of contour due to inflammatory thickening of the subserous fibrous structures. Since this thickening may not be evidenced by any physical signs until the valvulitis has so far progressed that it is shown by a murmur, it follows that no treatment for rheumatism, except the prophylactic, may antedate the process which causes the permanent lesion.

Does any one question the necessity for reducing the activity of the diseased heart to the minimum of physiologic requirements?

The means of accomplishing this, within certain limits, every physician has at hand; so, too, every practitioner has his favorite agents. Rest in recumbent position, freedom from disturbing influences, free action of the emunctories, maintenance of nutrition by a simple diet which will least tax the digestive apparatus—in other words, maintaining the activity of the sys-

tem with the greatest possible economy of heart action. Any remedial agents that will assist in accomplishing this end and are not contraindicated should be exhibited. The employment of antipyretics, cerebral or vascular sedatives, analgesics, stimulants, eliminatives (as laxatives, diuretics, diaphoretics), general or local applications, hot or cold, must depend upon the special needs of the case. So, too, with remedies directed to the heart itself. An arrhythmic and failing pulse may require strychnine, alcohol, digitalis, etc.; and pain, opium.

RHINOLOGY AND LARYNGOLOGY.

UNDER THE DIRECTION OF WADSWORTH WARREN, M.D.

Submucous Treatment of Hypertrophic Rhinitis.

Dr. Hamm, of Braunschweig, in the *Monatsschrift für Ohrenheilkunde*, details a very satisfactory procedure for the removal of hypertrophies of the turbinates. Bloebaum, of Köln, some time since made a report of the use of a specially constructed galvano-cautery point, by which he was able to make a submucous cauterization with only a trifling destruction of the superficial epithelium.

To accomplish a similar result with, as he claims, but a trifling destruction of mucous membrane, Hamm uses submucous injections of ten-per-cent. chloride of zinc solution. The method is simple and easy to carry out. By means of a Pravaz syringe armed with a curved needle, after cocainization of the mucous surface, 0.5 cubic centimeter of the ten-per-cent. chloride of zinc solution is injected between the mucous membrane and the bone. The pain is only trifling, and under suitable cocainization may be quite abolished. The result is excellent; a single injection results, within a week, in the restoration of the affected turbinate to its proper proportions. The procedure is similar to Lannelongue's method for the radical cure of hernia and to Landerer's treatment of small cystic tumors by chloride of zinc injections.

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
Lecturer on Dermatology, Detroit College of Medicine.

Treatment of Lupus and Chronic Eczema by Roentgen Rays.

Albers (*Wiener Klinische Wochenschrift*, No. 41, 1898), briefly discussing the above treatment, mentions that extreme care should be observed in judging therapeutic results of the Roentgen treatment. Assisted by Dr. Deyke, his experiments produced most favorable results. Albers continued by giving an exhaustive illustration of discoveries made by subjecting healthy skin to Roentgen rays. First appeared a yellowish discoloration, followed by redness, which then assumed the appearance of inflammation; gradually increasing excoriations then appeared. Soon the healing process commenced, and a

tender, new epidermis formed, bearing no cicatricial traces. Histological examinations by Dr. Unna proved in a remarkable manner that the elastic fibers suffered no discoloration under the ordinary Roentgen treatment, although under special rays a pigment deposit was discovered in the upper cuticle. The results in lupus cases were all very favorable and coincide precisely with Dr. Schiffs' description. Reddening was followed by purification and healing of the ulcers; the nodules appeared very distinctly, and then the whole process retrograded, leaving the skin smooth, white, and free from lupus.

Encouraged by such good results, Albers turned to other skin diseases. Two cases of eczema of the legs having been successfully treated, a case of impetigo eczema was subjected at an early stage to Roentgen rays. After twenty minutes' treatment the part affected became dry, and in a few days a cure was effected. Three similar cases were cured in a short period.

In conclusion, the speaker referred to the technique of the rays and advises that a preference be given to "Energish" rays. In cases where irritation appears the treatment should be immediately discontinued, lest the healing process be impeded.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

Indications and Contraindications for Eustachian Catheterization.

Dr. D. Braden Kyle, in an able article on "The Position of the Orifice of the Eustachian Tube and the Possibility of Catheterizing It Through the Mouth," in the *Philadelphia Medical Journal* of September 24, 1898, mentions among the indications for Eustachian catheterization: (1) A sense of fulness and pressure, with tinnitus and deafness; (2) acute otitis media, as soon as acute pain has been relieved by usual treatment, especially if unilateral—here the air-douche is indicated; (3) chronic catarrhal inflammation of the middle ear; (4) deafness caused by the foregoing; (5) acute suppurative inflammation of the middle ear; catheterization and careful inflation may induce dispersion and absorption of sero-purulent exudation without perforation; (6) chronic suppurative otitis.

Among absolute contraindications are: (1) The pressure of ulceration in the nose or nasopharyngeal cavity, with or without hemorrhage, on account of the danger of septic infection; (2) hyperpyrexia; (3) acute otitis complicated by acute pharyngitis and severe otalgia; (4) emphysema of the pharynx and larynx.

Among relative contraindications are: (1) Early childhood; (2) senility; (3) a neurotic condition; (4) convalescence, attended with great nervous prostration.

THE MEDICAL AGE

VOL. XVI. DETROIT, DECEMBER 27, 1898. No. 24.

ORIGINAL CONTRIBUTIONS.

OPTIC NEURITIS.

BY R. H. CHILTON, M.D., DALLAS, TEXAS.

The study of papillitis is so intimately connected with brain diseases that a thorough knowledge of the blood-supply is imperatively necessary to a correct understanding of the cause or causes that produce it. The frequency of this disease, and the fact that often but little or no injury to the sight is present in the beginning of the trouble, calls for an ophthalmoscopic examination in all troubles of the eye. The intimate association of papillitis with many brain affections makes it vitally important to look for papillitis in all forms of brain disease or mental aberration.

The blood-supply is derived from the ophthalmic branch of the internal carotid. The arteria centralis and the ciliary arteries all leave the ophthalmic branch just after its exit from the "foramen opticum." The central retinal branch enters the optic nerve near the "foramen," and the short ciliary branches course along the nerve to the eye, entering and being distributed around the disk. Another fact necessary to be remembered is that serum may separate the nerve fibers and sheath, causing a space between them. This space is continuous with subarachnoid space around the brain and in front with the lymphatic spaces in the optic papilla.

The discussion of papillitis also necessitates a discussion of choked disk. Gowers says the distinction between optic neuritis and choked disk is one of degree and not of cause. Fick says that choked disk is probably due to inflammatory diseases of the brain descending along the nerve sheath, but describes the disease as an edema of the disk. I am not willing to abandon the idea of true edema in these being the cause of the swelling in some few cases, at least. I have seen a very limited number of cases that subsided under active treatment which could not have been due to any inflammation. However, these were not so intensely swollen as are the ordinarily described choked disk.

Authors now classify all cases of optic neuritis and choked disk as papillitis. While this simplifies the study of these troubles, there is yet much to be gained by the careful consideration of the optic papilla.

Gowers says that optic neuritis may result from various diseases of the

brain, but its most frequent cause is from tumor of the brain, and a considerable degree of neuritis is rarely due to any other cause. If this be true, then in many cases which have recovered, and in which we see the results of papillitis, the tumors could not have been other than syphilitic gummata, because other tumors of the brain rarely get well. I am disposed to believe that a considerable number of cases of papillitis exist without brain tumor, and possibly without cerebritis, because a number of such cases are found in which no brain symptoms exist, yet they make fair recoveries. Possibly these are due to septic poison or embolism at this point, following endocarditis.

According to Fick, albuminuric retinitis may be shown by a true papillitis, and not by the ordinary symptoms of this disease. Fick also says there are cases of "neuritis opticum" in which not even a cold or such an intangible cause can be detected.

De Schweinitz says: "The many varieties of papillitis which occur independently of intracranial disease indicate that the papilla is a structure prone to be inflamed." From all the cases I have seen I conclude that as many and probably more cases of papillitis occur from orbital, septic, reflex and unknown causes as from brain disease. It is generally believed that mechanical impediment has nothing to do in the production of this disease. There are undoubtedly cases of reflex origin, and possibly later investigation will show that disease of the nasal membrane and ethmoidal region will play a greater part in the production of this disease than is at present known. I am not certain but the situation of the disk as regards light (this being the point of first exposure after leaving the brain) may have something to do in the production of these cases, the light acting as an exciting cause on already irritated nerves. In papillitis from orbital septic disease, or embolism of the vessels of the orbit, the disease is usually unilateral.

It is difficult to affirm that a papillitis really does or does not exist in cases of edema, or hyperemia of the disk. I have recently seen a case which I diagnosed an edema, and I am certain I was correct. Under active diaphoretic and alterative treatment the edema passed away. After the complete disappearance of the edema, the vision rose about one-third and was normal. Yet there remained evidence of change, especially in the tissues along the blood-vessels in the disk. This was evidenced by remaining white lines along the course of the vessels, which was doubtless a plastic exudate into the nerve fiber spaces.

We occasionally see cases which have no inflammation of the disk and no history of brain disease, yet with a slow progressive atrophy of the nerve, with all the evidence of a former inflammation in the optic nerve without involving the retina. Another probable cause of some of these cases is traumatism. This may be through concussion on an already irritated nerve, producing a genuine papillitis.

Again, we find cases of albuminuric retinitis in which the disk alone suffers from papillitis. If not, there is only a slight extension of the inflammation into the retina. In a number of cases of albuminuric retinitis that I have examined, nothing could be seen of any present or former retinal trouble, but still the vision was gradually becoming impaired, with evidence of tissue change in progress in the parts, as in the case of acute edema before referred to. What

effect the albuminuric poison can have in producing any change without inflammation I cannot tell, but I presume not much. If it does, then other nerves of the body would likewise suffer; especially would this be true of the nerves of special sense.

From the many causes here enumerated that probably produce papillitis, it is readily seen that this disease is no certain index of any special brain lesion. While we may expect to find some lesion of the brain, the diagnosis must be made as much by general symptoms as by existing papillitis, and together we have a basis for a conclusion. It is impossible to distinguish at all times between a genuine papillitis and a hyperemia. In fact, a persistent hyperemia of the disk would likely be followed by the same tissue change in the nerve fibers as if acutely inflamed. The result of either is a genuine atrophy.

In many cases of brain disease we find an edema of the disk. This may be the beginning of a papillitis, and may subside without becoming a true inflammation, yet such change would indicate about the same brain trouble that papillitis would. Such serous effusion may be the cause of a true papillitis if a predisposition exists.

The effect of septic disease of the brain is shown in a papillitis, and may occur in any disease where septic infection exists. A recent case coming under my observation from septic brain trouble was at first manifested in an intense hyperemia. Then followed an edema of the nasal side, so much so as to obscure the disk's inner half; later by evidence of a hemorrhagic papillitis. In many cases the cause is shrouded in mystery, unless due to eye strain.

In 1891 I was called to see a woman who had been confined five weeks previous. An examination showed right eye normal, but complete loss of vision in the left. I found it to be a recent papillitis. Vision had been fairly good till within a few hours before the examination, and the symptoms all indicated a recent attack. The disk was so much swollen that the outlines were imperceptible. Under treatment by pilocarpine and purgatives she recovered good sight. A few weeks later I found vision to be normal with the aid of a correcting glass. She was hyperopic and astigmatic. In 1893 I again examined the eye and found it in good condition save the refractive error, and with correcting lens the sight was good. She consulted me quite recently, and I found her to be suffering again from optic neuritis. She accidentally discovered the trouble, as several weeks previously she had lost her correcting lenses, and had been at work which produced the eye trouble. I found her blind in the left eye. Up to this date she has improved rapidly again. No evidence of brain, orbital or septic disease can be found. In the first attack I suspected a septic trouble, though no other evidence was present. In this attack she seemed in perfect health, save a little choreal trouble, which is relieved by glasses. I found absolutely no cause for this case save eye strain. Before the first attack she read while in the recumbent posture, and in this one had overworked the eye—in both attacks without the correcting lens. I do not now believe the first attack was due to septic disease.

The last point for me to consider is localization. It is of vital importance to determine the cause producing papillitis if due to brain disease. It is not always possible, but if each case is considered with other symptoms a rational

idea of locality is probable. This must be done by studying the conditions of all of the nerves of special sense, as well as the motor and sensory nerves of the brain; especially is the motor ocular of value in these cases. By finding the localities exempt we can often locate disease.

The treatment is: First, if possible, to remove the cause. In the beginning of mild cases much can be accomplished by active purgation and the use of diaphoretics. The best treatment, I think, is pilocarpine hypodermically sufficient to produce free diaphoresis. The use of the same remedy locally may amount to something. Blood-letting accomplishes nothing as far as I have seen. Alteratives can be used, but are too slow in their action to effect much.

I have stated in this paper that eye strain may be a probable cause in the production of edema and papillitis. So far as I am informed, no one has ever attributed it to this cause. While I have no positive evidence of this fact, yet the two cases I have previously referred to tend to confirm my belief in this theory.

IS LEPROSY CONTAGIOUS?

BY ROGER S. CHEW, M.D., M.S.C.,

Late Sanitary and Chemical Analyst Calcutta Municipal Corporation, and Assistant to the Health Officer of Calcutta; Recently Professor of Chemistry and Physiology of the Calcutta-Denver College of Medicine and Surgery; Now Consulting Chemist and Sanitary Expert, Calcutta.

In your issue of September 26, 1898, on page 566, appears an extract of Dr. Zambaco's contribution to the *Lyon Médicale* on the non-contagiousness of leprosy—an opinion that my own observations on 1034 lepers over a period of fourteen years and nine months fully corroborates.

The medical fraternity is by no means unanimous as to the origin, dissemination, prevention, suppression, or treatment of lepra, and while the majority are in favor of the "contagion" theory, they usually include inoculation and heredity in the category of contagion, yet are candid enough to admit that "leprous discharges may be touched or handled with impunity by the naked hand so long as the integument (of the person touching the leper or his discharges) is unbroken."

While the chiefs of Hanoi in Ceylon affirm that for generations back there has not been a single case of contagion amongst the Singhalese (*i.e.*, the native inhabitants of Ceylon), Sir Erasmus Wilson, the grandfather of dermatology, assures us "leprosy is endemic, but not contagious." Yet the *Northwestern Lancet* of March 1, 1888, seriously informs us: "Some writers *still* regard leprosy as markedly contagious;" then barely a week after asserting: "No one would absolutely deny that contagion may be artificially effected by inoculation." The *British Medical Journal* of October 10, 1890, declares: "Leprosy is contagious only in the sense that it is inoculable;" and *The Lancet* of June 28, 1890, which was one of the strongest of the supporters of the contagion theory, steps out of its beaten track by saying: "There are conditions and limits to the contagion: probably it occurs only through inoculation." But not one of these journals bothers its head to explain what it means by

inoculation, or to differentiate infection from contagion, infarction per deglutination, heredity, etc.

Without committing himself to anything particular, Mr. Freeland, the Government medical officer of the West Indies, says: "I think that those who believe that contagion takes an important share in the spread of this disease (leprosy) are in this part of the world (Antigua) at least in a decided minority;" and in the *Northwestern Lancet* of March 1, 1888, Prof. H. Dunn ambiguously says: "There is no evidence to show that the malady (leprosy) has in any instance spread by contagion in a country where leprosy was not endemic."

Next turn to the *Asiatic Quarterly Review* for April, 1890, where Sir George Birdwood writes: "In neither of its two forms (lepra maculosa and lepra tuberculosa sere nodosa) is true leprosy (lepra Arabum) really infectious, and if it be contagious, which I altogether disbelieve, its contagion is extremely sluggish and operative only under telluric, atmospheric and other external conditions predisposing to its independent development." These are very guarded opinions, which say nothing beyond doubting contagion and infection, and justify a person in concluding that uncertain either as to the accuracy of their own views or as to the non-contagiousness or otherwise of leprosy, these writers take refuge in ambiguity rather than admit that they have not had sufficient time nor opportunity to thoroughly investigate the subject.

I cannot say what my *confrères'* experiences are, but from patient inquiry among 1034 lepers in every stage of the disease I elicited the following summary:

Lepers by Nationality and How Disease was Obtained.		Proven to climatic and telluric causes.		Proven to food and drink.		Proven to direct blood taint—*i.e.*, heredity, inoculation.		Leprosy to other causes.		Total cases.		
		M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	Both sexes.
Adults.	Europeans and East Indians	44	8	9	9	48	15	10	10	111	42	153
	Mohammedans	68	22	66	22	50	3	44	5	228	52	280
	Hindus	87	20	50	24	37	14	77	18	251	76	327
	Other races	33	1	39	26	17	6	13	1	102	34	136
	Total	252	51	164	81	152	38	144	34	692	204	896
Children.	Europeans and East Indians	4	..	2	1	12	4	1	..	19	5	24
	Mohammedans	1	1	1	..	13	4	1	..	16	5	21
	Hindus	11	2	3	2	31	12	6	3	51	19	70
	Other races	3	2	..	2	7	6	2	1	12	11	23
	Total	19	5	6	5	63	26	10	4	98	40	138
Total of all ages		251	56	170	86	215	64	154	38	790	244	1034

This altogether precludes contagion and disputes the endemic theory, as under the headings Climatic and Telluric, Food and Drink, Direct Blood Contact and Other Causes are the following subheads, with the total lepers whose disease was distinctly proven to *that* cause:

1. Extremes of temperature and exposure, 69; malaria, 131; mal-hygiene and insanitary habits and surroundings, 107.

2. Eating large quantities of acids and chillies, 59; fish diet where fish was decayed, 8; intemperance in alcoholic beverages, 39; excessive use of salt and salted foods, 59; want of salt, 0; unwholesome food, 91.

3. (*a*) Born leprous, 15; leprosy directly received from parents and developing before puberty, 21; leprosy skipping first generation to attack the second 3, and attacking third generation 3. (*b*) Inoculation: Accidental through abrasions and other injuries, 26; during coitus, 5; scarification with anacardium and other medicinal substances, 72; invaccinated, 148; syphilitic, 0.

4. Born leprous of apparently healthy parents, 15; contagion such as sleeping with, eating with, nursing, and otherwise handling or wearing the clothes of a leper, 0; excessive venery, 36; indiscreet medication, 46; mental worry, 10; overwork, 11; and starvation, 74.

Of these 1034 cases no less than 422 have been cured of their loathsomeness, while medicines failed to make any lasting impression on the remaining 612.

It is impossible to find contact more complete than in the procreative act, when the bodies of the persons so employed have their temperature so increased and nerve tension so aggravated as to render contagion an absolutely necessary consequence; and yet there is ample evidence in India of numerous cases where people have lived for years together in uninterrupted marital relations with partners who were lepers of the worst degree without themselves becoming leprous. So also are there instances where the remaining members of a family have with impunity eaten, played, and slept with a leprous brother or sister.

In Calcutta during the years 1880–84 were three exceedingly handsome leper women—one suffering from tubercular and the other from anesthetic leprosy, which had not yet attacked their faces. These women plied their trade of prostitution very vigorously, receiving six to eight male visitors apiece per night. One of these women died of cholera, the second of enteric fever, and the third rotted to death; yet the closest inquiry among the hundreds of men who visited these women failed to establish a single instance of leprous infiltration or infection from them.

Two brothers—one healthy, the other a badly maimed leper—had in their joint keeping for several years a mistress whom they used to force to extend her favors to other men, with a view to augmenting their slender income. This woman bore two children, whose paternity might be imputed to either of the two brothers, or to any one of their mother's other visitors; but neither the mother, nor these children, nor the unaffected brother, nor any of the other men she had solicited, showed the slightest trace of leprosy. Within the last three years one of the brothers was drowned, the other died of his loathsome disease, and both the children (one ten and the other twelve years of age), who were otherwise healthy, were claimed by smallpox; but the woman is still alive and healthy.

In a certain State-office in Calcutta is a leper of the anesthetic and tubercular but non-ulcerative type, through whose hands for the past thirty years

have passed thousands of official documents which afterwards found their way to the general public. This gentleman's wife has been living with him for the past thirty-five years in perfect amity, and occupying the same chambers, but she is quite healthy and as yet has not engendered the disease from her husband; nor is any evidence forthcoming of leprosy being transferred to any one of the many thousands who received and used the documents this gentleman handled.

From the Prince of Wales' Leprosy Commission we expected grand results, or at least some definite knowledge, which we might have gained had these gentlemen been less partial in their inquiries and attentions, which they chiefly confined to the State asylums and lazarettos, where it was least likely to obtain anything like definite information or aught else save tutored or prejudiced evidence, and where the majority of the inmates were unmarried and grossly ignorant. As a necessary result of so partial an inquiry the Commissioners say nothing new or definite; but practically supporting the contagion and endemic theories, they tell us there is no necessity for segregation, as the disease will die out altogether as lepers are sterile(?). Yet they forget, or do not care to admit (for fear of official censure perhaps), that there is no instance of contagion from lepers to the officials who come in direct contact with them in the asylums, and impute failure of coordination of sperm cell with germ cell to sterility of marital spouse, even though it is an established fact that a man or woman who has no children by one spouse may have great issue with another. The following case illustrates this fact rather forcibly:

J. P——, who was born of leprous parents, remained apparently healthy till his nineteenth year of life, when he entered the employ of the Calcutta municipality as a pipe-layer. A few months later small crops of papillæ appeared on his right wrist, while a few leucodermic spots were seen on different parts of his body, and a slight balanitis manifested itself. As these symptoms had no tendency to increase he took no notice of them, and in his twentieth year married a young girl of sixteen summers. She conceived, but aborted at the fifth month. The fetus was literally covered with ulcers and was a most disgusting sight; but the mother seemed none the worse. A year later she conceived again, and going to full term was delivered of a fine girl baby. The mother died shortly after, and when the girl was three years old she began to exhibit signs of leprosy. The father, who by this time was a leper of the most pronounced type, espoused a second wife—a young girl of seventeen years. She became *enceinte* shortly after marriage, but becoming leprous died within a week after giving birth to a full-term child that lived for four hours only. All this time J. P——'s disease was going from bad to worse, but though he was so badly disfigured his sexual propensities appeared to grow stronger instead of weaker, and as even his reputed wealth could not tempt any Christian girl into marrying him, he entered into an arrangement with two Hindu widows to be his mistresses for a certain monetary consideration, to be paid them monthly in advance. One of these widows had had five children by her late husband, while the other was alleged to be barren. These women lived with J. P—— for five years and a half, during which the first-named woman had no more children, while the alleged barren woman bore him a girl

and a boy, both of whom so far appear healthy, and the younger of whom is now seven years old.

Although dreadfully disfigured in features and distorted in hands, and a most disgusting sight to look at, with huge sloughing and discharging ulcers, J. P—— was allowed to continue his duties of looking after and laying the water-supply pipes of Calcutta till the arrival of the "contagion scare," when the father of a more wealthy but equally disfigured leper—this leper died in 1892—called direct attention to J. P—— and lashed the popular indignation to such a pitch that the Commissioners were compelled to make him retire on a special pension. But instead of committing him to an asylum or some secluded place—his body was simply rotting away and emitted a most disagreeable odor, while his habits were decidedly insanitary—they allowed him to reside in the most thickly populated portion of Calcutta.

After being placed on a pension J. P—— used to drive down to the municipal market every morning, and though his hands were constantly oozing thick leprous discharges, he would freely examine and turn over the joints of meat and other foodstuffs exposed for sale till he selected what he required for himself. The meat and other things that he had handled with his naked hands would be sold unwashed to the next customer. The Commissioners, however, put a stop to this by interdicting his entering the market. It was just four months before his death that I saw J. P—— for the last time. His features were distorted beyond recognition, and his hands were so maimed that his mistresses had to feed him; but his carnal appetite was by no means decreased. He died nearly four years ago, but his mistresses are still alive, and thus far unaffected by his disease; while his eldest daughter, in whom the leprosy remained stationary after she attained puberty, is now the mother of two apparently healthy children, of whom the elder is five years old.

I met J. P——'s brother a short time ago. He is a short but muscular and hale and hearty man of about forty-five years of age. He tells me that one of his parents was a gouty subject, and the other suffered from a slight form of anesthetic leprosy. He has two other brothers and three sisters, all of whom have large families; but neither his nephews and nieces nor their parents exhibit the slightest trace of the fell disease that carried off his eldest brother.

True, the details of this case do not furnish conclusive evidence of non-contagion and fecundity, but it is one of many very similar cases that have come under my notice—besides being a well known case—proving the excessively erratic course that leprosy may run; and when I tell the reader that of the 1034 cases I studied 624 were married, and in four cases only did the husband infect his wife, while on three occasions the wife infected her husband, and while forty-four of the married lepers had had no children there were no fewer than 1566 conceptions—or an average of 2.7 children per head—among the remaining 580, he will agree with me that the sterility of lepers is a myth, and that the probabilities are totally against contagion.

ODOR AS A SYMPTOM OF DISEASE.

BY J. H. MC CASSY, M.A., M.D., DAYTON, OHIO.
Former Superintendent of Kansas State Insane Asylum.

The chief functions of the nose are: (1) Respiration; (2) olfaction; (3) resonator to the voice; (4) office of regulator of the aeration of the middle ears. The normal daily secretion of the nasal chambers is about one pint, which comes chiefly from the turbinated bodies, and is used in moistening the air before it reaches the lower respiratory organs. The nose performs these functions without any effort on the part of the possessor. It is the mucous membrane of the upper half of the nasal fossæ that is capable of appreciating odorous impressions. Like the other special senses, olfaction may be cultivated by attention and practise. Experts can discriminate qualities of wine, liquors, drugs, etc.

None of the lower animals are possessed of intelligent consciousness. If they were they would be constantly wretched and miserable and thus very badly adapted to their environments and the purposes of their creation. But the acuteness of the sense of smell is far greater in many of the lower animals — for example, the dog — than in man, and they employ it in guiding them to their food, in warning them of approaching danger, and for other purposes.

The sense of smell is capable of great cultivation. For example, in the well known case of James Mitchell, who was deaf and blind from birth, the sense of smell was his chief means of distinguishing persons and perceiving the approach of strangers. Among many of the savage tribes the sense of smell is almost as acute as in many of the lower animals. Humboldt says the Peruvian Indians are able in the middle of the night to distinguish whether an approaching stranger is a European, American Indian, or negro.

The precision with which hound dogs locate criminals in their hiding-places is wonderful, although last month Judge Young, of Warsaw, Indiana, ruled in the case of Gilbert Young, who was traced by bloodhounds and arrested for malicious trespass, that there was no authority in law for accepting the evidence of dogs and that it would be an injustice to hold the prisoner. Nevertheless, in many cases the evidence furnished by dogs has been invaluable, and especially when it can be corroborated by other evidence.

Diseases have their characteristic odors. Persons who have visited many insane asylums recognize the same familiar odor of the insane. General paresis of the insane affords us a typical example. It is a true cerebral disease, physiologically, pathologically, and psychologically. In it the substances of the convolutions of the brain undergo a process of degeneration or atrophy, which finally invades the whole nervous system. The nerve and mind tissue die slowly and progressively. The blood-current carries the waste tissue to the lungs for aeration, and the result is the foul, characteristic odor of this disease.

It is not insane asylums alone, but prisons, jails, workhouses, armies in camp, churches, schools, and nearly every household, that have their char-

acteristic odors. It is when the insane, the prisoners, and the soldiers are aggregated in large groups or battalions that their characteristic odor is recognized by our much-neglected "smeller."

As said before, most diseases have characteristic odors, and by the exercise of the sense of smell they could be utilized in differential diagnosis. For example, favus has a mousey odor, rheumatism has a copious, sour smelling, acid sweat. A person afflicted with pyemia has a sweet, nauseating breath. The rank, unbearable odor of pus from the middle ear tells the tale of the decay of osseous tissue. In scurvy the odor is putrid; in chronic peritonitis, musky; in syphilis, sweet; in scrofula, like stale beer; in intermittent fever, like fresh-baked brown bread; in fevers, ammoniacal; in hysteria, like violets or pineapple. Measles, diphtheria, typhoid fever, epilepsy, phthisis, etc., have characteristic odors.

THE TREATMENT OF UREMIA BY VENOUS SECTION.

BY JAMES C. WILSON, M.D.,

Professor of Medicine, Jefferson Medical College.

The following case, a young man suffering from chronic interstitial nephritis, was admitted to the hospital October 3, 1898. The most interesting thing about the case is the fact that he was sent here with the diagnosis of convulsions caused by excessive cigarette smoking. The case was reported in the daily papers and has acquired much celebrity in consequence. How such a diagnosis was made I am unable to fathom, and the young man denies that he is a cigarette smoker at all. He is a tobacco-chewer, but uses tobacco in no other form. His father is living and well, but his mother died of hemiplegia. In about forty per cent. of the cases of hemiplegia there is found to be disease of the kidneys also.

The patient came to the hospital with the history that about two months previously he had a number of convulsions, but recovered sufficiently to go back to his work as a machinist. It should be clearly set forth that he has no history of epilepsy; the arteries are thick and the arterial tension is very marked. The urine is yellow in color, slightly acid, with a specific gravity of 1010, and contains many casts.

This is probably a case of chronic interstitial nephritis, with an acute exacerbation of parenchymatous nephritis. We talk and read of this definite division of Bright's disease, but the majority of cases undoubtedly overlap; the forms of inflammation and the histological changes are mixed; so that we generally get a mixture of symptoms which sometimes may be confusing.

When it comes to a matter of treatment I always like to picture the condition as one in which the patient has been poisoned and for whom relief must come. In these conditions the kidneys have generally failed and the toxic materials are held in solution in the blood. Then it is necessary to fall back on the other excretory organs, the intestines and the skin. The use of hot-air baths for copious sweating and the use of calomel for active catharsis are indicated. In addition nerve sedatives are frequently indicated to lower

the nervous irritability of the system; for this purpose I prefer chloral, although under exceptional circumstances morphine may be used.

But there is a class of patients, such as a woman in her first pregnancy who is threatened with puerperal convulsions, or who is sinking into deepening coma, or in whom the next convulsion may be the last, in whom the indication is to bleed. In this patient, if his condition had not improved under the treatment he was getting, I would next have ordered a fillet to be thrown around his arm and had him bled—ten, twelve, or even sixteen ounces.

In the past hundred years the art of bleeding had its ups and downs, until to-day it is largely discarded; but I have stood at the bedside of a great many patients during the past twenty years, and have seen numbers of them come back apparently from the grave under the use of judicious bleeding. In cases of poisons circulating in the blood, a man suffocating with illuminating gas or carbon dioxide, congestion of the lungs with acute ventricular distention, in uremia which will not respond to other treatment, the use of the lancet has turned the scale. It is no great drain or shock to the system; the blood-making organs produce new blood quickly and easily. Even turning an exsanguined patient so that his head is down and his feet are up will serve to revive him to a marked degree.

Buchard has demonstrated that there are probably six or eight toxic principles in the blood under these circumstances which are having different effects on the various nerve centers. It is not the accumulation of water nor urea which does the damage. It is well at the present time not to speak too definitely of the toxic principles until further investigations have determined their character more decisively.

The rationale of blood-letting is almost self-evident; volume for volume it has been determined that there is forty times as much of the toxic material drawn off in the blood as by diuresis—that is, one pint of blood removes as much poison as forty pints of urine. When we consider how impossible it would be to get this quantity of urine, we are able to see the value of the venous section. In addition, when we remember that there is usually an acute process added to the chronic condition, we can judge of the urgency of the condition. No one can, for example, examine the kidney of post-scarlatinous nephritis, and see how it fairly drips blood, without seeing what a local congestion exists in these cases. I believe that too little attention is being paid to these conditions by the profession; there is a strongly marked tendency to consider these cases as hopeless. As I have said, I have seen too marvelous results obtained by blood-letting to discard it. In the course of a few hours the whole clinical picture may be changed by the judicious use of this discredited therapeutic agent.

The last victim of the plague in Vienna has recovered, and the outbreak is at an end. Dr. Rudolph Poch, who treated those attacked, shutting himself up in the pavilion with them, has received from the Emperor of Austria the Knight's Cross of the Francis Joseph Order, in recognition of his bravery and devotion.

CORRESPONDENCE.

THE ARMY EXAMINATIONS.

To the Editor of THE MEDICAL AGE:

In your issue of November 20, two brief paragraphs attracted my attention as a "military man"—the first at the foot of page 688, commenting on the War Investigation Committee, and the other at the top of page 690, referring to the Board of Medical Officers to examine acting assistant surgeons. As to the first, I am happy to be able to declare that from all I have seen and heard of the medical service of the army since the commencement of the late war down to the present moment, the truth is that there is much to praise, little to be forgiven. As to the second item, it is only necessary for me to cite one individual case to demonstrate the cautious wisdom of the Surgeon-General in issuing that order. I have had the honor of being President of the Board of Examiners at this post, and am very happy to say that for the most part the candidates have acquitted themselves most satisfactorily, but not all. The special case to which I have referred is the following: A candidate, thirty-eight years of age, appeared for examination. In making inquiry—as I did in every instance—into his professional history the following facts appeared: He graduated in 1888 from a school in a State adjoining Michigan, which school I had never heard of. He claimed to have spent a short time at Bellevue immediately after his examination. He did not attempt to estimate the amount of benefit which, under the circumstances, it was reasonable for him to expect to reap in that way. He then tried his "prentice hand" at private practise. At the end of the first year he had not earned his living, and consequently abandoned the profession and went off to Honduras and engaged in various pursuits until the war broke out, when he applied for an appointment as acting assistant or contract surgeon in the army. Whatever his professional powers or defects may be, I believe that he must be somewhat of a mind-reader, because at this point he arose and said: "I don't think that I had better submit to this examination; I don't think it would be any use." The Board were unanimously of the same opinion, and I did not hesitate to tell him that we felt strongly opposed to wasting our time and patience in the performance of any such travesty. He had traveled about eight thousand miles at his own expense in the hope of securing a contract as a physician and surgeon. He was willing to accept the office and assume all the grave responsibilities therein implied, while at the same time he was perfectly aware of his absolute inability to do the work. Under the circumstances he did not carry away with him any great amount of our sympathy or pity.

This, of course, is an extreme case, but it is not the only one by any means which is calculated to demonstrate the good judgment of the Surgeon-General.

DONALD MACLEAN, M.D.,
Major and Surgeon, U. S. V.

DISCOVERY AND REDISCOVERY.

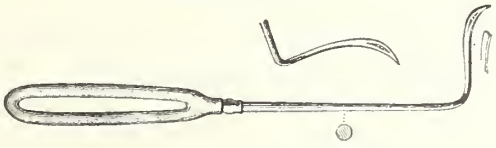
To the Editor of THE MEDICAL AGE:

The spirit of discovery often exemplifies the close communion into which two human minds can come. Two discoverers or two inventors, starting from different standpoints of experience, may reach the same conclusion with an exactness which must almost impel belief that their results were achieved by the operation of universal mind rather than through the medium of any independent or original faculty on the part of themselves.

In THE MEDICAL AGE of July 10, 1888, will be found a short paper dealing with a new needle, which I had invented some time previously for the performance of cervical operations. The feature of this instrument was the employment in the body of the needle of the then somewhat novel Hagedorn points. The cut below is the one which illustrated this article.

Ten years later, perusing the advertising pages of the *Medical Record*, I find the following cut of an instrument named Dickenson's needle:

HAGEDORN POINTS.



Here is a lesson in evolution. These two pictures might be taken for those of synchronous inventions. A comparison, however, shows how the spirit of evolution seems to have occupied itself with the handle rather than with what some might esteem the essential part of the instrument.

The cuts will be interesting as exemplifying in what ten years of progress exactly consists, and also as serving to warn investigators that they may sometimes be anticipated in spite of their best efforts to be original.

EDWARD W. JENKS, M D.

84 Lafayette Ave., Detroit, Dec. 5, 1898.

A SUM amounting to $50,000 has been given the Pasteur Institute at Lille, in France, by its director, Dr. Calmette. The money is to be loaned for the defraying of building expenses till the municipal council votes the sums required for that purpose. The money is then to be employed in the purchase of material for new researches, or for scholarships for young men who wish to make original researches in the laboratory. The sum given to the institute represents the profits accruing to the donor from the application of one of his discoveries in a large distillery at Seclin.

THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine.

EDITED BY FREDERICK W. MANN, M.D.

All communications regarding papers, reports, etc., should be addressed to the Editor of THE MEDICAL AGE, P. O. Box 484, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the Publisher, William M. Warren, Box 484, Detroit, Mich.

EDITORIAL ARTICLES.

THE HEALTH OF BOYS.

An English physician who has made a physical examination of one hundred boys in a public school, has created a mild consternation in the minds of many educationalists by his strange report. Of these one hundred boys, who were from thirteen to fifteen years of age, thirty-nine were below the average height, fifty-three below the average weight, sixty-eight below the average in chest measurement, sixty-three were the subjects of deformities, two were ruptured, fourteen had varicocele, and twenty-two were the subjects of albuminuria. It seems difficult to believe such a report. The Englishman, as he is familiar to us, is not lacking in vigor and usually sizes up extremely well when his physical stamina is contrasted with the standard of other nations. His taste for athletics and outdoor sports and pastimes is supposed to have saved him from the relaxing vices which have promoted physical degeneracy among feebler nationalities, and yet these one hundred boys are found for the most part to be a rickety lot, which in some savage communities would have been left to perish among the unfit, or in Greece or Sparta might have been weeded out by some system of selection quicker in its action than natural selection can ever be.

It may be inferred with much reason that something similar is occurring among our own boys. Complaints are now not uncommon of deranged health in schoolboys, and at the age of fourteen or fifteen boys are apt to become flaccid and constipated and to suffer from nervous anorexia. That medical science is not too completely tending to preserve the unfit would seem manifest from insurance statistics. These would show that there has certainly been no impairment of average vitality. Then, again, if congenital causes were at the basis of this condition, would not girls as well as boys exemplify these retrograde physical tendencies? It is well known that girls show nothing of the kind. The girls in England especially are said to be bigger, healthier, and stronger than their mothers ever were. They enjoy vigorous outdoor pastimes. They seem to have profited in a high degree by the protection imposed by the social and sanitary conceptions of the day. Why do not boys reap a corresponding advantage?

One of the commonest explanations of this condition in boys is that there is too much athletics. Boys of thirteen are taxed severely, both physically and

mentally. They are encouraged to play games which involve violent exercise, and at the same time have their perceptive faculties crowded by numerous studies. They require more rest, but do not get it. When they come to be eighteen years of age there is less eagerness in athletic tastes, and a disposition to take life more easily is manifested. The overstrain is practically restricted to a short period of time and might be guarded against by a little precision and prearrangement on the part of parents.

Boys undoubtedly suffer, as compared with girls, from a non-recognition of the important changes incident upon puberty. While the girl is specially protected at this time by maternal wisdom, boys are apt to be left to shift for themselves. That this epoch in a boy's life is almost as important as it is in a girl's is a fact which receives tardy recognition. The temporary signs of stress and strain which young boys manifest could probably be entirely averted were proper precautions taken suitable to the time of life, and the necessity of adequate rest insisted upon.

EDITORIAL NOTES.

The Didactic Lecture.

An editorial writer in the *American Medico-Surgical Bulletin* regrets the decadence of the didactic lecture, and even goes so far as to ask if we are not getting too much clinical teaching. He quotes a recent address of Prof. Von Ziemssen, of Munich, who says: "The idea that the clinic can replace systematic lectures is absolutely foolish, but unfortunately it is very common among the student youth; and on the other hand the studies at home can never replace the spoken words, all the less if the latter are illustrated by demonstrations with figures, systematic drawings, models, etc." There is little doubt that the student who comes to the clinical lecture without knowledge of pathology, or destitute of any definite perceptions regarding the general scientific outlines of disease, can derive nothing from the clinic, save a few empirical impressions. There is undoubtedly good ground for the warning that error is now being made in an opposite direction, and while students may not be getting too many clinics, they are often getting too few lectures upon the fundamental principles of medicine or the scientific aspects of disease.

The Color of Newly-born Children.

Newly-born children exhibit so many prehistoric traits that we might quite reasonably expect to find in them certain color characteristics which might indicate possible lines of descent. This is so far as is known a line of investigation which has not been pursued. From a French physician—Dr. Farabery—comes the assertion that negro children when born are exactly the same color as are those born of white parents. Had Dr. Farabery practised obstetrics in Alabama or Missouri, or even in Michigan, he would certainly have had a different opinion. Various shades of black, brown and bronze would have been familiar to Dr. Farabery had he had such experience, and it can only be from lack of opportunity of observation that "all coons look alike to him."

ITEMS AND NOTES.

ARTIFICIAL legs and arms were in use in Egypt as early as B.C. 700.

TYPHOID FEVER prevails extensively among the troops at Honolulu.

BUBONIC PLAGUE has made its appearance at Tamatave, Madagascar.

IRELAND has, according to the latest statistics, nearly 20,000 insane people.

DR. SIGMUND EXNER has been made extraordinary professor of physiology in the University of Vienna.

SIXTY TONS of meat was seized and destroyed in London during the month of October as unfit for human food.

ACCORDING to rumor the German empress has fallen a victim to consumption. In the last two years her weight has fallen to 124 pounds.

THE *Louisville Post* says that George Arnold, of Lancaster, Ky., has invented a sewing machine for the use of surgeons in suturing wounds.

THE *Medical and Surgical Review of Reviews* is the name of a new journal published in London, under the editorial management of Dr. Nathan E. Boyd.

THERE occurred a short time ago at Batley, England, an outbreak of typhoid fever, which was attributed to ice-cream sold at stalls at a local fête.

THE corporation of Edinburgh is contemplating the establishment of a municipal hospital for the care and treatment of cases of pulmonary tuberculosis.

THE latest tuberculosis antitoxin is one announced as discovered by Dr. J. Denys, professor of pathological anatomy and bacteriology at the University of Louvain.

A GERMAN biologist has calculated that the human brain contains 300,000,000 nerve cells, 5,000,000 of which die and are succeeded by new ones every day.

MILKMEN in Switzerland receive better wages if gifted with good voices, because it is said a cow will give one-fifth more milk when soothed by a pleasant melody during the time of milking.

DR. THEODORE GSELL-FELS, whose death occurred recently in Munich, was a doctor in three faculties—medicine, philosophy, and theology. He was the author of a number of works on climatology.

THE Sixth International Otological Congress will be held in London, on August 8, 9, 10, 11, and 12, 1899, under the presidency of Dr. Urban Pritchard, professor of otology at King's College, London.

A BERLIN inventor has discovered a process for making writing-paper that will not burn. He has also invented a peculiar ink that resists the action of fire and remains upon the paper as a dark-brown sediment.

ON account of disease and rebellion in Venezuela, the meeting of the Pan-American Medical Congress, which was to have been held at Caracas, Venezuela, in December, 1899, will be postponed to December, 1900.

MR. ERNEST HART'S services to the British Medical Association are to be commemorated by a scholarship for the "study of preventive medicine." This endowment, which is tenable for two years, is worth $1000 per annum.

CAROLINE CROT, formerly Caroline Abigail Brewer, of Boston, has left $100,000 to two prominent physicians of that city for investigations to find some way of curing cancer, consumption, and other diseases now regarded as ncurable.

A YOUNG sailor was a short time ago admitted to the Municipal Hospital of Pennsylvania, believed to be suffering from leprosy. He came from the coast region of the Baltic Sea, a locality in which leprosy is said to be prevalent.

THE surgeons of the collieries in England have inaugurated a movement to obtain better pay for their services. At present they receive only 25 cents a month from each collier, and for this sum are expected to treat not only the collier, but his family, and furnish all necessary medicine.

RECENT scientific measurements have proved that the moving air is a real source of danger in the case of a railway train going at full speed. The air not only possesses sufficient power to knock one over, but it also communicates a spinning motion tending to roll a person under the train.

DR. EIJKMAN, of Batavia, records the observations made by himself and by Dr. Vordderman on the cause of beriberi in Java, among 280,000 persons. The disease is traced to rice diet, independent of locality, extraneous influences, or of the origin or the condition of the rice itself; it is found to be caused by decorticated or white rice.

A CHARGE of six cents for medicines or for surgical dressings is now being made in the out-patient department of the London Hospital. It is found that those who can afford this nominal charge give it willingly, the sum being remitted in the case of those really unable to pay it. Five thousand dollars a year will be made by the adoption of this plan.

IT has been said that the hospitals of Paris are in an unsanitary condition and lack accommodations sufficient to meet the demands made upon their resources. As a result of a recent examination, the superintendent of the charitable institutions of Paris asserts that it would require at least $10,000,000 to put the hospitals of that city in proper condition.

Bright-red spectacles, accompanied by internal doses of calomel, form a new German specific against seasickness. Seasickness is due to a lack of blood in the brain, while (according to Epstein's investigations) red sends blood to the brain with a rush. By looking at one point for some time through the red glasses the patient is cured radically.

The State Board of Medical Examination and Registration of Indiana has begun prosecution proceedings against one H. J. Jones for practising without a license. Jones is an osteopath, and the case will be likely to bring into official cognizance the acts of these people, whom a correspondent aptly describes as "the best organized and most dangerous set of charlatans of the age."

In the *Bulletin del Consejo Superior de Salubridad* of February, Dr. Revueltos, a public vaccinator of Mexico, states that in twenty-eight persons vaccinated whilst they were suffering from whooping-cough, the frequency and violence of the attacks notably diminished from the moment of vaccination, and that when the pustules reached maturity the patients were almost or entirely cured.

In some parts of Italy blood-letting is still held to be a cure-all. Some time ago a sick child was bled until the mother timidly protested. The doctor assured her that one more application of the cups would insure recovery. In spite of this, the next morning, when the doctor came, the mother sobbed out that her baby was dead. "Madam," said the doctor, "be comforted by knowing that your child died cured."

The Boston Emergency Hospital has adopted the use of an electric circular saw to take the place of the knife in making amputations. Dr. Galvin claims that by its use no anesthetic is necessary, as the operation is painless, and it shortens the time, as it cuts through almost instantly. This he claims lessens the shock. No ligatures are needed, and all the cases so far treated have done better than by the old method.

The "Red Cross Medal" has been founded by the German Emperor, says the *British Medical Journal*, at the suggestion of the Empress Victoria Augusta, the Lady Patroness of the German Red Cross Societies. The medal, of which there are to be three classes — bronze, silver, and gold — is to be bestowed upon persons of both sexes without distinction in rank or position in life for special services rendered in the Red Cross cause.

The *Medical News* says that a public exhibition has been made in Brooklyn of the powers of a powder called "kilfyre," to put out fires. A pine structure well covered with kerosene and tar was set on fire in one of the small parks. The flames having gained good headway, the powder was scattered over the pyre, and in four seconds the roaring mass was a blackened ruin, every spark having been put out. It is claimed that this powder is especially applicable for use in public meeting places, as schools, churches, theaters, etc.

TESLA, in the *Popular Science Monthly*, says: "A man has just so many hours to be awake, and the fewer of these he uses up each day the more days will they last. I believe that a man might live two hundred years if he would sleep most of the time. That is why negroes live to such an advanced age—because they sleep so much. The proper way to economize life is to sleep every moment that it is not necessary or desirable that you should be awake."

ONE of the New York papers has kept a list of the casualties reported during the past year, as follows: Number of collar-bones broken, 5; legs broken, 4; ribs broken, 4; skulls fractured, 3; torn ligaments in leg, 3; shoulders broken, 2; besides broken nose, concussion of the brain, ruptured kidney, broken wrist, collar-bone dislocated, knee dislocated, cartilage of ribs torn, ankle broken, and thumb broken. Internal injuries and twisted legs are hardly considered as casualties.

A SINGULAR celebration, says the *Milwaukee Sentinel*, was held by Mrs. Hedwig Ehm at her home, 1111 Walnut Street, a few days ago. Mrs. Ehm commemorated, with a reception, the fact that she had assisted at 3000 births within a period covering eighteen years of professional practise. Her record now is 3008 births, which she believes to be the world's record. She comes to this conclusion by reason of the fact that several years ago the papers made an extended mention of the fact that a Paris midwife, seventy-five years of age, had served at 3000 births, which appeared to be the record. Of the 3008 births at which Mrs. Ehm assisted forty-five were of twins.

ACCORDING to an English Journal, the British Medical Association and the General Medical Council are preparing to still further tie the hands of medical men. A few months ago the unqualified assistant was tabooed. Now medical men who cover unregistered dentists are to be punished wherever possible. The dental acts forbid unqualified and unregistered dentists to administer anesthetics, but the acts have been evaded by procuring a qualified doctor to undertake this forbidden work, while the so-called dentists perform the rest of the work. Medical men are now to be prohibited from assisting this device, and those who disobey will be liable to be relieved themselves of the right to practise.

IN the east end of London there is living at the present time a Jew by the name of Maurice Fox, who has for a period of over twenty years abstained from all solid food, subsisting on a daily diet of six pints of milk, three pints of beer, and half a pound of Demarara sugar. At the present time he is over forty years old, healthy and intelligent. It appears that at the age of seventeen he caught some lingering fever "which shattered his constitution and entirely destroyed his digestive organs." He has taken many kinds of treatment in hospitals and from physicians, many of them of celebrity, but without effect. A Königsberg physician suggested that in order for him to live, he must subsist on sugar, milk, and beer. On this regimen he soon regained normal health.

THE treatment of chronic malaria by splenectomy is recommended by Dr. Jonnesco, of Bucharest. He reports twenty-two cases in which operations

were made. In all there was rapid improvement in the proportion of red blood-corpuscles and a diminution of the toxicity of the urine. The theory of Laveran, of the spleen being a protective organ against malaria, is considered by this investigator to be wrong. The spleen acts, he thinks, as a reservoir for the hematozoa, where they accumulate between paroxysms. There are so many soldiers going about just now with enlarged spleens and paroxysmal temperatures that a favorable opportunity is afforded for testing the value of Jonnesco's ideas.

According to the *Medical Record* alarm was caused recently in San Francisco by the report that a death from the bubonic plague had occurred in Chinatown. The report was started by the Chinese, who were terrified by the death of three of their countrymen from pneumonia. They thought the disease must be the plague and that it was sent to them in punishment for the building of a tower on the Hall of Justice near by. So when a fourth death occurred the Chinese were sure the plague was upon them, and they communicated with the city authorities in the hope that the municipal building would be razed to the ground. Thus they believed the evil spirits would be placated and Chinatown saved from the plague. The Board of Health officials made an autopsy and found that the cause of death was nephritis and that there was nothing whatever to indicate plague.

It has been calculated, says the *Medical Press and Circular*, that since the outbreak of the insurrection in Cuba in February, 1895, to January, 1898, Spain has dispatched to Cuba some 20,000 kilos. of preparations of quinine, 400 kilos. of opium, 29,000 kilos. of carbolic acid, 1400 kilos. of corrosive sublimate, 2370 kilos. of iodoform, 350 kilos. of rhubarb, and 2530 kilos. of castor oil. In addition to these medicines the army absorbed, figuratively speaking, 16,000 meters of sticking-plaster, upwards of 60,000 kilos. of cotton-wool, and 545,000 meters of gauze for dressings. The cost of the medicinal part of the supplies alone amounted to three and a half millions of pesetas, nominally equal to $600,000. The medical staff comprised between five and six hundred doctors and about a hundred chemists. During the three years fifty doctors and sixteen chemists died, most of them having fallen victims to yellow Jack.

Sashes worn by army surgeons, says the *Medical Record*, have a history. A great many people do not know why army surgeons wear green sashes. It is not so much an insignia of rank as it is a protection to the wearer. According to the code of war, surgeons are never shot or taken prisoners. To deliberately shoot a surgeon while he is wearing his sash is considered a violation of the code, punishable by death. Because of this provision surgeons of one army never refuse to look after the wounded of the other army if it is possible for them to do so. During the civil war it was often the case that after a battle the field hospitals would contain almost an equal number of men dressed in blue and gray. The Federal army had the best surgeons and the best stores, and a wounded Confederate considered himself in great luck if he was removed to a Federal hospital to be cared for by Federal surgeons and physicians.

A CASE of phosphorous necrosis due apparently to the inhalation of phosphorous fumes is recorded in a recent issue of *L'Odontologie*. The patient was a man of good health, but addicted to the habit of excessive cigar-smoking, consuming about twenty cigars a day and using many matches to each one, as he frequently interrupted the smoking during his work. It was computed that for the last twenty years he had daily inhaled the vapor of phosphorus given off by over one hundred matches. The early symptoms were pain in the right eye, with swelling involving the whole side of the face. Suppuration supervened, and the pus obtained a free flow into the oral cavity. The patient's condition grew worse, and the maxilla was eventually removed. A few months later a fresh operation was necessary, but the patient collapsed, dying from meningitis. The patient's teeth were in a deplorable condition, so that it is possible the phosphorus acted through the medium of the teeth as the cause of the necrosis.

THE *American Medico-Surgical Bulletin* gives brief mention of a case which lately came under the notice of Charpentier. A woman of fifty five applied to the Doctor, telling him that, though she was after the climacteric, she feared she was pregnant. She said she had had connection with a man, and since then she had unmistakable symptoms of pregnancy. She was so convinced of it that she confessed her sin to her son. The Doctor examined her and persuaded her that there was nothing the matter with her, and later he found out that the connection she spoke of was also a myth. But in a few months she returned to him with the same fear. He knew another old lady of sixty-five who had such strong erotic desires that she had to seclude herself completely for fear of yielding to her passion. She told the Doctor that while her husband was alive she was, on the contrary, of a very cold temperament Charpentier thinks that eroticism is rather rare during or after the menopause, but Vallan asserts that there is no period in woman's life in which erotic desires and hallucinations are more frequent.

ACCORDING to the *British Medical Journal* the maufacture of cripples is said to be a flourishing industry in some parts of the Pyrenees. It would appear that this is not one of the many inventions which make this "so-called nineteenth century" famous in the records of the ages. Fabricius Hildanus, in his chapter on Preternatural Tumors, relates the following story: "In the year of 1593 there was seen in Paris a boy of fifteen or eighteen months, the skin of whose head was so much stretched that it greatly exceeded the size of a natural hydrocephalus. The father and mother carried him about from place to place as a monster. As the concourse of people was great, the magistrate suspected that there was some fraud in the matter, and clapped the father and mother into prison. Being put to the question (a euphemism for the torture) they confessed their crime, to wit, that they had made on the top of the head right down to the muscles a small hole, through which having pushed a syringe they blew air between the skin and the muscles, in such fashion that little by little, and repeating the process every day, they had made the swelling. The syringe being taken out, they stopped the hole with wax or something of the kind."

NEW PUBLICATIONS.

INTERNATIONAL CLINICS.

Volume III of the eighth series of International Clinics contains a large number of interesting chapters taken from all departments of medicine and surgery. The initial lecture on The Therapeutic Use of Alcohol suggests the use of alcohol itself when any definite physiological quality is desired to be attained. An interesting lecture on Secondary Albuminuria in Children's Diseases is worthy of notice, and another one on Physical Signs in Examination of Brain Cases is specially noteworthy for its admirable clinical suggestions. It is impossible to particularize all the meritorious contributions. The work is handsomely illustrated.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynæcology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology, and Dermatology, and Specially Prepared Articles on Treatment and Drugs by Professors and Lecturers in the Leading Medical Colleges of the United States, Germany, Austria, France, Great Britain, and Canada. Edited by Judson Daland, M.D. (University of Pennsylvania), Philadelphia, etc.; J. Mitchell Bruce, M.D., F.R.C.P., London, England; David W. Finlay, M.D., F.R.C.P., Aberdeen, Scotland; etc. Volume III, Eighth Series, 1898. Philadelphia: J. B. Lippincott Company, 1898.

DOCTOR THERNE.

The antivaccination fad has assumed enough importance in England to permit compulsory vaccination to be waived in favor of what is termed a "conscientious objector." In enacting this legislation, "the most powerful ministry of the generation" has suffered a strange paralysis, and it will be better than might be expected if this act of retrogression does not result in the sacrifice of many innocent lives. The importance of this deed, whereby the State has withdrawn its protection from helpless children against a very virulent disease, has induced Mr. Rider Haggard to write a medical story. The attitude of the conscientious objector is boldly and skilfully delineated, and the results which follow the ignoring the plain truths of science are powerfully depicted. Mr. Haggard, having been much impressed in his travels with the gravity of smallpox among the unvaccinated, has entered upon his task with great zeal. He has not only written an interesting story, but he has done useful missionary labor.

Doctor Therne. By H Rider Haggard, Author of "She," "Allan Quatermain," etc. London, Bombay, and New York: Longmans, Green & Co., 1898.

THE PRINCIPLES AND PRACTICE OF MEDICINE.

Students and practitioners will be gratified on receiving the revised edition of Dr. Osler's valuable work on the practise of medicine. The present edition has been fully recast. A large number of articles have been rewritten, and a number of new ones added. The section on Diseases of the Nervous System has been rearranged, and an attempt has been made to group the diseases in accordance with the anatomy and functions of the parts. The most recent advances in bacteriology have also been utilized to the utmost extent. The work is already so well known that it is unnecessary to say anything further in the way of commendation. As a guide to the diagnosis, symptomatology and treatment of disease it is thoroughly practical in character, and trustworthy in every respect.

The Principles and Practice of Medicine. Designed for the Use of Practitioners and Students of Medicine. By William Osler, M.D., Fellow of the Royal Society, etc. Third Edition, Entirely Revised and Enlarged. New York: D. Appleton & Company.

PHILIPPE PINEL.

This little brochure is a translation of an essay by Francis Tiffany in praise of the humane and courageous life-work of Philippe Pinel, the enlightened French physician, who first loosed the chains from the hands of the insane. Much of the beneficent treatment with which the insane are now cared for, and indeed the whole system of non-restraint, must be ascribed to the labors of this brave man, of whose influence for good so many unfortunates now reap the advantage.

THE PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Glass Splinters Found in the Human Finger by Roentgen Rays.

Linstow, of Göttingen (*Deutsche Medicinische Wochenschrift*, No. 41, 1898), says it is already well known how often Roentgen rays are used to locate foreign matter in the human body, even in those parts less susceptible to light, viz., the head and trunk. With the assistance of the rays he saw a piece of glass in a finger, as in the following case: A photographer's assistant, aged fifteen, cut the third finger of his left hand with a piece of glass. This occurred the latter end of March. The wound healed without reaction, but soon the patient felt a pricking sensation whenever the scar was pressed. This pricking not having ceased by September, the patient applied again for advice, and immediately cherished the idea that a piece of glass must have become embedded in the flesh; so a Roentgen picture of the finger was taken, and in the lower part of the third finger a small right-angled figure was found to be visible. The picture being placed by the side of the patient's finger, the author lanced the affected location, and upon the first incision felt the knife grate against some hard body, which was then extracted with the forceps and proved to be two tiny splinters of glass which had rested together at right angles, their weight and measurement being as follows: Larger splinter—Length, 3.20 millimeters; breadth, 2.95 millimeters; depth, 0.32 millimeter; weight, 0.0059 gramme. Smaller splinter—Length, 2.92 millimeters; breadth, 1.30 millimeters; depth, 0.39 millimeter; weight, 0.0030 gramme.

The incision healed quickly and the finger remained healthy and fit for work. The Roentgen pictures are not only invaluable for defining the exact location of foreign bodies, but also for deciding their magnitude.

The Treatment of Two Cases of Lupus Facei by Roentgen Rays.

Albers and Schonberg (*Deutsche Medicinische Wochenschrift*, Vereins-beilage, No. 27, 1898) report the following cases: The first patient dated the commencement of his illness from January, 1895. He had been treated by many competent physicians, and in 1896 had tried the tuberculin injection cure, but all to no purpose. The treatment by Roentgen rays continued nearly eight months, consisting of daily sittings each of about half an hour's duration, in which the tube was placed 25 centimeters (10 inches) above the patient's face, the current not exceeding 20 volts 5 amperes. The treatment was discontinued immediately symptoms of dermatitis were noticed. The result was absolute. The lupus proliferations receded slowly and continually; the nodules shriveled more and more until they had entirely disappeared. For two months patient had suffered no relapse. A similar result was obtained with a patient twenty-eight years old. The lupus of the outer skin disappeared as in the first case. A contemporary lupus of the fibers on the inside of the nose, though materially lessened, was not yet entirely cured. In both cases the mode of treatment was the same.

Use of Saline Infusions.

T. F. Reilly, in the *Medical Record* of November 12, 1898, summarizes a paper on the indications for the use of saline infusions as follows:

1. In all cases of severe hemorrhage, whether external or internal.
2. In shock, both simple and post-operative, it fulfils all indications.
3. In all toxemic conditions, and here it should follow venesection; indeed, no agent thus far has compared with it in efficacy in uremic and septic conditions.
4. In cases of poisoning due to vegetable or mineral substances.
5. In any pathologic state attended with feeble pulse, due to diminished arterial pressure.
6. As a last resort in cases of imminent death from any cause of an accidental nature.

A Case of Sewing-needle in the Liver Removed by Operation.

George A. Peters, in the *Canadian Practitioner* for November, 1898, reports the case of a child eleven months old who, while being fondled by its mother, suddenly cried out with pain. Later, a small red punctiform discoloration was discovered over the region of the right rectus muscle, near the middle loin. On operation a needle was found almost buried in the liver, with its eye just beneath the sheath of the right rectus muscle. It was readily removed and found to be black in color, but smooth. The wound was stitched up without drainage, healed by first intention, and the child left the hospital on the sixth day.

MEDICINE.

Tuberculosis and the Milk Supply.

Delephine, in *The Lancet* of September 17, 1898, sums up his article as follows:

1. Healthy cowsheds, well lighted and ventilated, easily cleaned, arranged so as to separate the animals as completely as possible from each other and to prevent the food and litter of one from being contaminated by others. Good water-supply. After discovery of a tuberculous animal thorough disinfection of its stall, and if possible of the whole shed.
2. Isolation sheds of the same kind for cattle found to be affected with a moderate or slight degree of tuberculosis.
3. Stalls well isolated from the others might be provided in this shed for animals which have not been tested and have to be kept in quarantine until tested, or better still, a special testing shed frequently disinfected might be provided.
4. Immediate slaughter of all cows in an advanced state of tuberculosis.
5. Fattening of cows with moderate tuberculosis, these cows not to be allowed to come again at any time in contact with the healthy ones.
6. Any dairy produce from these tuberculous cows to be sterilized. If butter be made the cream should be treated for some time at 85°, which does

not interfere with the making of good butter (Bang). Tuberculous cows should, however, be fattened as soon as possible and their milk used for as short a time as possible.

7. Tuberculous cows with tuberculous udders are usually in a state of advanced tuberculosis, but in any case a cow with tuberculous udder should be slaughtered at once.

8. All calves to be fed from the first on sterilized milk. The thoroughly sterilized milk of tuberculous cows might be used for this purpose.

To avoid the other sources of deterioration which the author has mentioned:

9. The udder and milkers' hands should be kept absolutely clean.

10. The milk cans or pails should be washed with boiling water or sterilized by steam.

11. This milk should be cooled immediately after being milked and its temperature kept below 40° F. until it is treated in the dairy (by filtration, separation, sterilization, etc.).

12. Milk which has not been sterilized and which has to be sent by rail from the dairy to a distance should be kept by packing in ice or otherwise at a temperature below 40° F., if possible, until it reaches the consumer. The same precautions with regard to cooling apply to all milk which cannot be consumed within a few hours—say eight or ten hours at the most—from the time of milking.

13. The authorities should be asked to regulate the importation of foreign milk and dairy produce with a view to insure that the precautions above mentioned have been duly taken to insure the wholesomeness of these products.

14. The authorities should be asked to find the means to prosecute and punish adequately all kinds of neglect rendering milk dangerous to health, so as to place the farms and dairies where proper precautions are taken on a fair footing in the general competition.

The History of the Massage Treatment.

It is often impossible to determine the origin of our methods of treatment, particularly as most of them date back to the dark ages, when accuracy in detail was not a characteristic feature in medical records. Sweden is usually credited with being the place of origin of the scientific system of massage and physical exercises. This, says the *British Medical Journal*, is no doubt correct as far as modern Europe is concerned, but the real originators of massage and physical exercises appear to have been the Chinese. An interesting article appeared recently in the *Deutsche Medicinische Wochenschrift*, in which reference was made to a book lately published by P'an Wei, Governor of Hupeh. The author, a great authority on massage, was consulted by the late Empress of China. The Chinese legends contain many references to various systems of physical exercises, and these are associated in a curious manner with metaphysical thought. Life, according to the Chinese traditions, is entirely dependent on "air currents," which are designated as the primary aura of the organism. So long as the body is permeated by the "air current" it is proof against disease. The object of physical exercise is to circulate the "air

current." The Chinese system is divided into three periods, each period occupying one hundred days. The first period should commence at the time of the new moon. The patient must rise at 4 A.M., walk outside his house, and take seven deep inspirations; immediately after this two youths, who have been specially trained, commence a gentle friction all over the body, starting over the cardiac area. At the time of full moon a further set of inspiratory exercises must be taken. Later on in the second period the various parts of the body are rubbed with wooden planks until the muscles are hardened. It is not until the hardening of the muscles takes place that the real physical exercises commence. Between the fifth and sixth months is the period of greatest activity; the European dumb-bell is replaced by large sacks filled with stones. In the third period the back muscles are chiefly exercised. Great benefit is said to have resulted from this system.—*Scientific American.*

PATHOLOGY AND BACTERIOLOGY.

UNDER THE DIRECTION OF THADDEUS WALKER, M.D.,
Microscopist to Harper Hospital, Detroit.

Are Complete Castrates Capable of Procreation?

F. R. Sturgis, in the November issue of *Gaillard's Medical Journal*, contributes an interesting article on this subject, in which he carefully reviews the literature and gives the results of a number of experiments upon dogs and other of the lower animals, and from his study of the question draws the following conclusions:

1. In animals, for a varying period after complete castration, normal spermatozoa are found in the contents of the seminal vesicles.

2. This period varies in different animals, being six days for the dog, seven days for the cat, and fourteen days for the guinea-pig.

3. In man, clinical cases are recorded where fecundation of the female has occurred after coitus with the male who has been completely castrated, but in accepting the correctness of such statements we must remember the adage that accidents may happen in the best-regulated families. Still, Princeteau's case (if correct) proves that spermatozoa do exist for a certain time in the seminal vesicles of a eunuch, and arguing from analogy in what occurs in animals this is quite probable.

4. Still pursuing the analogy, in man, as in the dog and cat, a complete castrate *may* be capable of procreation provided the coitus occurs within the first seven days after the castration.

Recent Advances in the Normal and Pathological Histology of the Central Nervous System.

F. R. Bailey, in the *Medical Record* of December 3, 1898, in a carefully prepared article, in which he reviews and compares the methods and technique used by Weigert and Nissl in the staining of the tissues of the central nervous system, sums up the results of his work as follows:

In normal histology: (1) The method of Golgi has given us a clear and definite conception of the general architecture of the central nervous system, and has demonstrated its analogy to that of the other organs of the body; (2) the method of Nissl has allowed us to make great progress in our knowledge of the ultimate structure of the nerve cell.

In pathological histology: (1) The method of Golgi has proved of comparatively little value; (2) the method of Nissl has aided us in penetrating the mysteries of the pathological cytology of the central nervous system, and, in the light of the already described analogy in structure of the nervous system to that of the other organs, to bring the hitherto isolated pathology of the nervous system into harmony with the pathology of other organs of the human economy.

The Presence of the Bacillus Typhosus in the Gall-bladder Seven Years After Typhoid Fever.

Dr. J. Brown Miller, in the *Bulletin of the Johns Hopkins Hospital*, reports the case of a woman, thirty-seven years of age, who was admitted to the gynecological ward of the Johns Hopkins Hospital complaining of pain in the right hypochondriac region. In the spring of 1891 she had the first attack of pain, from which she now suffers. She had some fever, no chills, marked nausea and vomiting, the vomitus consisting of pure gall. She noticed during this attack an oblong swelling beneath the right costal region. A month later she had a second attack accompanied with a high fever, which lasted four weeks, when there was a remission of four or five weeks followed by another rise of temperature, which lasted one month. Since then she has had, every three or four weeks, attacks of pain. She has now constant pain and tenderness over the gall-bladder. She was operated on in March, 1898, by Dr. Kelly. A large number of stones were removed from the cystic duct. Examination of the bile microscopically revealed the presence of the bacillus typhosus.

THERAPEUTICS.

The Healing Action of Streptococcic Serum.

Boun (*Deutsche Medicinische Wochenschrift*, No. 42, 1898) describes a case of septic infection from which he himself suffered, and expresses his conviction that his recovery is due entirely to the result of treatment with streptococcic serum. The author had lanced a furuncle for a patient, and that evening had scratched his foot when retiring. Two days later he was attacked with chills and lymphangitis, with swelling of the inguinal glands, accompanied by the appearance of a small fissure between the second and third toes of his right foot. Four days after the injury, although the fever had been low, severe chills recommenced, the pulse became very quick, and his temperature rose to 40°. An abscess lying deep in the thigh was emptied, and an infected inguinal gland was later extirpated, but symptoms of general sepsis developed—pains in the breast; dry, painful coughing; acute apnea; and pulse at 160. Upon

Dr. Leinhardt's advice, Marmorek's serum injections were now given. An improvement was soon noticed; the pulse decreased from 160 to 120; the temperature fell from 39.4° to 37.9°, although the septic fever had not entirely subsided. A sero-sanguineous pleural exudation now formed, and the fever increased, accompanied by severe pains in the left shoulder. After this fifteen serum injections were given on an average of once daily. Two hours after the last injection very remarkable complex symptoms set in—dryness of throat, unbearable thirst, painful swelling of the submaxillary gland and of the joints, and renewed increase of fever to 40°; a rash-like measles then broke out, covering the whole body, accompanied by renewed choking sensation. After forty-eight hours the joints began to shrink and the temperature to fall, but severe coughing fits again set in, which occurred at intervals of fifteen minutes and were followed by the ejection of a clear, almost watery, secretion. After twenty-four hours he was free from fever, for the first time during fifty-six days. Now commenced his convalescence, which was interrupted, however, fifteen days after the fever had abated, by a swelling of the left leg, caused by a thrombus of the vena cruralis.

A Case of Carbolic Acid Poisoning Treated by Venesection and Injection of Saline Fluid; Rapid Recovery.

Oliver, in *The Lancet*, reports a case of an unmarried woman aged twenty-one years who was admitted to the infirmary in a state of coma due to carbolic acid poisoning. The internal saphenous vein of the left leg was opened and eight ounces of blood was removed. Four pints of a normal saline solution at a temperature of 110° F. was then injected into the vein; $\frac{1}{60}$ grain of sulphate of atropine was given hypodermically to stimulate her respiratory center. Half a pint of milk beaten up with two eggs, to which was added one minim of croton oil, was passed down the stomach-tube. By degrees the patient, who at first seemed moribund, began to come round, her pulse gradually improved, and the respiratory movements became stronger. In a few hours she had rallied sufficiently to recognize those around her. Glycerin in drachm doses given frequently to allay the burning sensation in her throat and esophagus. On the following day, when seen by Dr. Oliver, she seemed remarkably well and the pulse was good. There was still pain on pressing the epigastrium. For three days the urine was dark-green in color; it contained phosphates, but never albumen. The wound made in the leg healed kindly, and recovery generally was rapid and complete.

In conclusion, Dr. Oliver says: "Once a poison like carbolic acid has got into the blood, washing out of the stomach is not enough. The rational treatment is, in addition, to transfuse, or to do as was done in this case, bleed and transfuse."

The Action of Certain Drugs and Mineral Waters on the Secretion and Composition of Bile in the Human Being.

In a number of observations lately made by Dr. Wm. Bain (*British Medical Journal*) on an individual in whose gall-bladder a fistula existed, it was found that: (1) The total quantity of bile secreted in twenty-four hours is about 775

cubic centimeters, and contains 15.8 grammes of solid constituents. (2) The quantity secreted in the daytime is larger than at night. (3) The sulphocyanate of potassium of the saliva does not come from the bile salts. (4) The following substances increase both the quantity and solid elements of the bile: The mineral waters of Harrogate, of Carlsbad, of Kissingen, and of Spa; likewise euonymin, sodium benzoate, and sodium salicylate. (5) Podophyllin and iridin increase the solid constituents without perceptibly changing the quantity of bile. (6) Podophyllotoxin and the strong water of Montpellier Springs in Harrogate diminish to a slight degree both the quantity and the solid elements of the bile. (7) Hot water and soda water in large amounts do not appear to increase the secretion of bile. (8) Sodium salicylate increases the excretion of uric acid in the urine.

DERMATOLOGY.

UNDER THE DIRECTION OF ANDREW P. BIDDLE, M.D.,
Lecturer on Dermatology, Detroit College of Medicine.

Impressions and Conclusions of Five Thousand Cases of Skin Disease

In a paper entitled "Impressions and Conclusions Based upon a Study of 5000 Cases of Skin Disease Treated During the Year" (*Medical Record*, Oct 22, 1898), read before the American Dermatological Association June 1, 1898, Dr. C. W. Allen, of New York, speaking of erysipelas, states that the seventy-two patients here included, with the exception of a few children, all presented the facial type. All recovered, so far as he is aware, usually within from forty-eight to seventy-two hours. There is only one point he now wishes to make, but he believes it a most important one. Scarcely one of these subjects failed to give a history or "evidence of preceding nasal affection," and the skin manifestations almost always began upon the side on which the nostril was involved. Every patient was treated by thorough intranasal swabbing, upon both sides, with a fifty-per-cent. watery solution of ichthyol. Ichthyol collodion was applied over the skin. In some instances the adhesive band was applied about the forehead. In scarcely a case did the scalp become involved, and then not extensively. Pseudo-erysipelas, as the term is here employed, is meant to designate an inflammatory condition of the arm following vaccination, of which thirteen instances were recorded. Extension of the process does not reach beyond the elbow or above the arm, as a rule. There is roughness of the skin rather than the smooth surfaced erythema of erysipelas before vesiculation occurs. In other respects the process is clinically much the same as that of true erysipelas. True erysipelas not infrequently follows vaccination, as shown in a number of instances in this collection.

In the forty-one cases of zoster there were few presenting special interest. The youngest subject was two and one-half years old, while the youngest given by Cantrell in his statistics (*Philadelphia Medical Journal*, March 26, 1898) was three years. In almost all cases the lesions were varnished with three-per-cent. methylene blue in collodion. Even in the aged with con-

siderable pain the lesions dried up rather promptly under this local treatment and the pain disappeared. The statement has recently been made that zoster should cause a suspicion of the presence of phthisis. This I could not verify in a single instance.

Warts are auto inoculable, and hence hetero-inoculable. Of the sixty-five patients treated, several were members of the same family. The history was frequently given of one (the largest) "seed wart" coming first and others developing afterward, and that a second child showed the growths subsequently to the one presenting the parent wart. This is the same history as is usual in molluscum contagiosum. The contagiousness is seemingly proven by the fact that once wholly removed, other new warts do not continue to develop. Interesting instances were those in which a little girl with abundant warts upon the hands and wrists showed a group of fifty lesions surrounding the right eye, with none upon the opposite side; a young man with forty upon one palm; a young girl with the hands covered (several of "seed" variety), and about twenty on the inside of the mouth (buccal membrane). Most efficacious preparations for local application were found to be: acetic acid, 1; sulphur, 2; glycerin, 3; or salicylic acid with acetic acid and cannabis indica in collodion. Trichloracetic acid was also used with good effect.

GYNECOLOGY AND OBSTETRICS.

UNDER THE DIRECTION OF W. P. MANTON, M.D.,

Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine.

Vaginal Hysterectomy for Double Infantile Uterus.

Edwin Ricketts (*St. Louis Medical and Surgical Journal*, October, 1898) reports a case in which the uterus had been dilated and curetted for dysmenorrhea, and subsequently the left ovary and tube removed with the intention of bringing on premature menopause. The left-side organs were the only ones discovered at the time. The operation failed to give relief. The patient had afterwards married and separated from her husband within a year. The uterus was less than an inch in depth, and the vagina was short and narrow. On examination, high up to the left was found a small opening which led into a second infantile uterus half an inch in depth, and containing dark blood. The other uterus was empty of fluid.

Albuminuria.

Under this caption Arthur K. Stone (*Boston Medical and Surgical Journal*, Sept. 22, 1898) presents some interesting figures relating to this condition in women. A series of 1248 cases from the woman's out-patient clinic of the Massachusetts General Hospital was investigated. The patients were working girls and women and the wives of industrious laborers and clerks, people who occupy about the same station in life and whose surroundings are very similar. From this list were excluded those who were beyond doubt nephritic or cardiac

cases, or where there was well-marked tuberculosis or other disease accompanied by well-determined degenerative conditions. All menstrual cases and cystitis were eliminated, and the catheter was employed when necessary to obviate the presence of leucorrheal discharge. This left to be considered, for the most part, cases of anemia, enteroptosis, pelvic conditions, dyspepsia, etc. The following table gives the results obtained:

Age.	Total cases.	Albumen.	Per cent.
15–20	98	31	31.6
20–30	418	96	32.8
30–40	298	66	22.1
40–50	238	54	22.7
50–60	141	37	26.2
60–70	49	13	26.5
70–	6	1	16.6
	1248	298	23.08

The importance of the consideration of these cases lies in the small number of patients in whom albuminuria was found to be a symptom.

NEUROLOGY.

UNDER THE DIRECTION OF CHARLES W. HITCHCOCK, M.D., DETROIT, MICH.,
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County Care of the Insane.

Of all the advocates of the county care of the insane as against State care, none have been more boastful and vainglorying than the advocates of the Wisconsin system, under which patients who have been first sent to a State institution are, after a certain residence there, in case they are so unfortunate as then to be pronounced chronic and incurable, thence transferred to one of the county asylums, of which there are about twenty-five in the State, caring for some 3000 patients.

In the October number of the *American Journal of Insanity*, Dr. C. B. Burr, the able superintendent of Oak Grove Hospital, gives a very entertaining and fair-minded account of a winter visit to these institutions. He finds them in most instances in close relations with the county poorhouses, and in general not at all warranting the high colors in which the advantages of the system are usually painted.

Dr. Burr sums up his objections to the system as follows:

1. Absence of the hospital idea.

2. Lack of medical oversight.

3. The inadequate care of patients, particularly of the filthy and feeble classes and epileptics.

4. Lack of sufficient attendants, which necessitates patients remaining too much indoors, particularly in the winter time.

5. Lack of standards of care prescribed and enforced by central authority, superior to politics, as shown in the extreme variation in per capita cost and differences in beds, furnishings, attendance, etc.

6. Lack of efficient State supervision.

7. Frequent lack of discriminating local supervision, this being due chiefly to absence of knowledge of the requirements of the insane, etc.

Epidemic Cerebro-spinal Meningitis.

The *Medical News* of December 3, 1898, makes reference to a report by Dr. Wm. J. Class in the October Bulletin of Chicago's Health Department, in which thirty-eight cases are cited which had been under the observation of a number of skilful men. In all cases affording a history at all complete headache was present, affecting the entire head, but most severe in the occipital region. Severe backache, abdominal pain, hyperesthesia of the greater part of the body, boring pain in the bones, pain on attempted flexion of the head, were prominent symptoms noted in the various cases. Chills ushered in seven of the thirty-eight cases, and the majority of the cases so commencing ended fatally. Vomiting occurred early in twenty-six cases.

In twenty cases the patients became delirious. Paralyses were various in the different cases; convulsions, rare in adults, were frequent at the onset in children. These are some of the symptoms discussed. The following conclusions were reached:

1. Epidemic cerebro-spinal meningitis is to be classed among the contagious diseases, belonging to the same category as phthisis pulmonalis.

2. Unsanitary conditions exert great influence in affording a proper nidus for the growth of the germs of this disease.

3. Health authorities should receive notice of the occurrence of a case of this disease, in order that sanitary defects may be remedied.

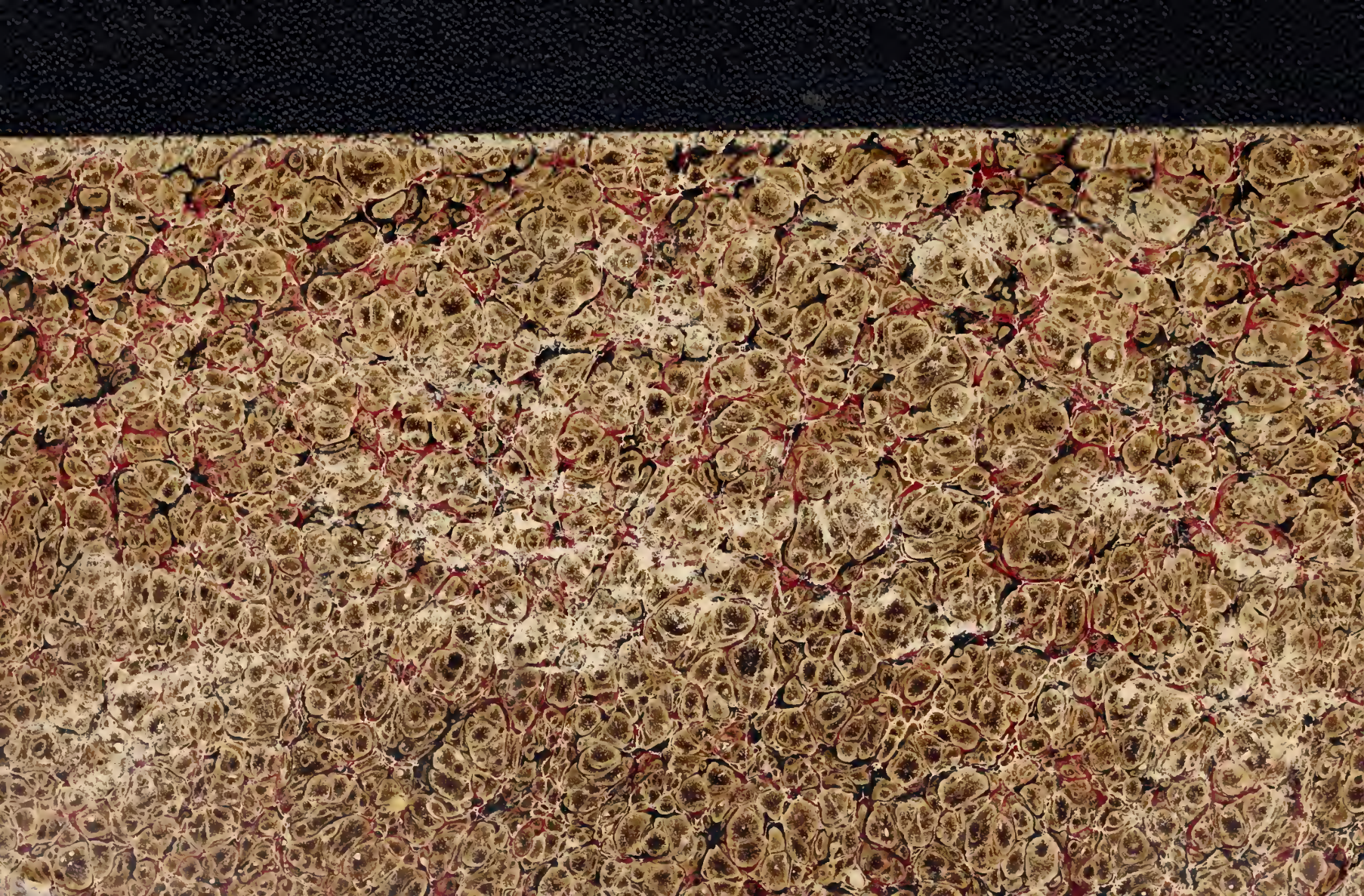
4. Persons afflicted with this disease should, whenever possible, be isolated, and all evacuations should be rendered sterile by the use of antiseptics.

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE DIRECTION OF R. W. GILLMAN, M.D.,
Clinical Professor of Ophthalmology, Detroit College of Medicine.

Sympathetic Ophthalmia, after a Lapse of Fifty Years.

At a meeting of the San Francisco Society of Eye, Ear, Nose and Throat Surgeons, held November 17, 1898, Dr. Geo. H. Powers presented two cases of sympathetic ophthalmia in old men; after a lapse of from thirty to fifty years, and in both of which the lost eye had not received a foreign body, but had been destroyed by a simple traumatism. In both cases the sympathetic trouble came on very slowly, and was not at first recognized, for the reason that there was no pain or involvement of the destroyed eye. The true condition was eventually suspected and the atrophied eye removed, when the ophthalmia subsided at once. In both the eyes which he had removed he found a bony plate, but no evidence whatever of any inflammatory trouble.

Orbital Cellulitis and Death from Sepsis Following a Sty.

H. Guth (*Prager Med. Wochenschr.*, No. 3, 1898) reports the following case: A woman was brought into the clinic with both lids greatly swollen, conjunctivæ chemotic, both eyeballs protruding, high fever, Cheyne-Stokes breathing, tonic and clonic spasms. Ophthalmoscopic examination showed that there was suppurative meningitis, which had proceeded through infection from a hordeolum; the suppuration had infiltrated the orbital tissues and penetrated through the right cavernous sinus to the meninges.